91

SHROPSHIRE EDUCATION COMMITTEE

SCHOOL HEALTH SERVICE

LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE
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REPORT

OF THE

Principal School Medical Officer

1964

COUNTY HEALTH OFFICE, COLLEGE HILL, SHREWSBURY

June, 1965

INDEX

LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE
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To:

The Chairman and Members

of the Shropshire Education Committee

MR. CHAIRMAN, LADIES AND GENTLEMEN,

I have the honour to present the Annual Report of the Principal School Medical Officer for the year 1964.

Routine School Medical Inspection as described on page 5 began about the year 1908 and has been a target for critics, if not ever since, at least (as I can testify) for one generation. Yet it has virtues that make it indispensable, in that every child is thoroughly examined: and this is much safer for the children than the alternatives so often advocated which would purport to "spot the defect" more or less by inspiration. Therefore we continue pedestrian routine examination and allow our Medical Officers time to confer with the parents, notably at the examination of the entrants to school.

The leavers have their problems too, and these the School Health Service tries to help with, as alluded to on pages 5 and 40.

For the middle group there is a routine medical examination at 11 years on entry to the Secondary School. It seems that teachers are increasingly advocating that an unemotional introduction at about this same age to some biological facts might well pave the way for and facilitate later ventilation and discussion of such biological and psychological difficulties as sometimes embarrass adolescents and the lives of young adults. Perhaps we may be able to do this in our Health Education programme in future years.

Reference to Squint is made on page 7. Unrecognised or untreated squint can lead to "Amblyopia" or loss of vision in the squinting eye from its disuse.

The Shrewsbury Consultants express willingness to see and advise on any doubtful or marginal case, and one has offered to give a general talk on the subject to our School Medical Officers during 1965. We will certainly watch the marginal cases carefully.

That 3% of the school population were found Verminous makes sorry reading. It seems probable that such infestation originates with a few carrier families and that increasing firmness in dealing with persistent offenders is warranted and indeed a duty to normal responsible children and their parents. When all else fails, prosecution for persistent lousiness has sometimes proved to have a most salutary effect elsewhere, and should not I feel be excluded as a measure for the protection of the majority if this protection is proving necessary in Shropshire.

Handicapped Children and "At Risk" Registers are referred to on pages 15 and 28. Dr. N. V. Crowley, who has contributed much to our knowledge of these subjects in Shropshire, was absent for the last four months of 1964, the Council having given her complete support for her studies to secure the Diploma in Public Health. It is pleasant to record at the time of writing this Introduction in June, 1965, that she has succeeded in obtaining this postgraduate qualification with Honours, and will be making a welcome return here in July, 1965, to continue work which brings credit to the Council's School Health Service.

It is co-incidental that no case of deafness or partial hearing was formally "ascertained" as such during 1964 for admission to a special residential school. Reference to the Tables on page 16 shows the number of such cases already "on the books", and pages 28—35 on Deafness show the attention given to searching for those who may need help to hearing, and the large numbers in fact discovered.

Much attention is also recorded on pages 15—20 to the special measures the Health Department increasingly employ to care for all handicapped and "at risk" children. Notable are the paragraphs on pages 17 and 18 referring to the Shrewsbury Nursery Special School, now to be re-named the "Katharine Elliot School" in tribute to Baroness Elliot of Harwood who was Chairman of the Steering Committee which guided the Carnegie Survey into the needs of handicapped children and their families, and who has since been appointed Chairman of the Carnegie United Kingdom Trust. Lady Elliot opened the new school in December, 1964. To her and to Mr. Richard Hearne our thanks are due for the splendid accommodation and amenities provided by the respective funds with which they are associated.

Mr. Clarke, our Senior Dental Officer, expresses qualified optimism in his report on pages 21—24 with special emphasis on the value of education about dental health. His enthusiasm and hard work in this field of prevention are happily showing fruit.

Mr. Paulett, Senior Speech Therapist, begins his report by congratulating Miss Bellis (who held the fort alone for a large part of 1964) on becoming a Licentiate of the Guildhall School of Music, qualifying her to teach the subjects of Speech and Drama. He is characteristically modest about his own achievement in securing the highly technical Diploma in Audiology, after a year's study which the Council sponsored at Manchester University.

He records with satisfaction the recruitment of Miss Percival and Miss Wagg as Speech Therapists in September, 1964. History once again repeats itself, and both these ladies in June, 1965, are engaged to be married. In congratulating the lucky men, one could wish that a clause could be devised for Speech Therapists' Contracts making release contingent on each finding a suitable successor first—or rather two successors each, for, as is pointed out, we have vacancies for two more Speech Therapists already.

Mr. Paulett's contribution on pages 24—27 is, as usual, a thoughtful and thought-stimulating report meriting careful consideration. As with so many other skills, much more is needed than a good teacher—serious and steady "home-work" by child and notably by parents is essential for progress let alone success.

Detection and assessment of Deafness in children have assumed great and increasing importance in the Health Service in Shropshire over the last few years; and the immense amounts of time and effort and money devoted to it in our School Health Services are reflected in the large amount of space devoted to this particular subject in this report on pages 28—35.

So great is the increase in volume of work that other activities of the School Health Section and Health Department are being prejudiced, and promotions and increased numbers for the clerical establishment of the Section are warranted and needed if the work is to continue and expand as it should. Testing 5,592 children in schools and 1,885 at medical audiology clinics in 1964 represents a great volume of new and exacting work and expertise. The staff of the Health Department bring forward client children originally. Their assessment is medical work and (as in the case of the Nursery Special School pupils) it is our medical officers and other doctors and nurses who find and assess most of the clients for such special education, so that the problems of the handicapped children can be considered or resolved. The planning and administration and documentation of the cases adds a formidable amount of extra clerical work.

The work of Miss Green, Teacher of the Deaf, and her colleagues is tremendously appreciated, and once again her report on pages 31—35 is a most thoughtful exposition of a subject in which she is expert.

The Child Guidance Service is reported on by Mr. Green, County Educational Psychologist, who has given valuable help to children and parents and medical men, especially during the last 17 months when no Consultant Psychiatrist for Child Guidance was in charge of the Service. It is hoped that July, 1965, may see the appointment by the Birmingham Regional Hospital Board of such a Child Psychiatrist who would give the greater part of his time to the County Council Child Guidance Service. Such appointment might in turn allow for the recruitment of Psychiatric Social Workers, two of whom, following the departure of Dr. Barbara Evans, left the Council's service. Only under the guidance of such Consultant Psychiatrists are the Psychiatric Social Workers available likely to apply for the positions for which they are needed in Shropshire, and for which we have established vacancies.

Meanwhile our grateful thanks are given to the Consultants at Shelton Hospital, and the Psychologists and Social Workers who have helped so substantially during this rather lean period. The summary on page 36 shows that in fact less than half of the new referrals could be seen: more than half the cases were referred from medical sources.

B.C.G. Vaccination and Immunisation against Diphtheria, Smallpox and Tetanus are dealt with on pages 37—39.

The first-named with the customary 93% acceptance rate is yet another nail in the coffin of the once dreaded Tuberculosis, now so successfully attacked from many angles that its control seems assured. More attention to "booster" doses of Diphtheria, Smallpox and Tetanus antigens as described, has meant substantially more work (numbers of the order of 3,000 extra children protected against these, and more than 2,000 against Poliomyelitis) but also substantially more protection, as the figures for "lack-of-incidence" in the Tables attest.

Health Education rose in importance and is well dealt with by Mr. Harris in his section of the report on pages 39—40, and by Mrs. Owen regarding her courses for adolescents in secondary schools on Growing Up and Personal Relationships. The Health Department have long been conscious of the need for such Health Education, and anxious to find a suitable formula and teacher, despite the diffidence they shared with the public and with the educationalists about embarking on these potentially troublesome waters. In Mrs. Owen the Health Department seem to have found a most worthy and doughty champion for youth and growth and morality, acceptable to the head teachers and notably, we think, to the students themselves. In thanking her we wish continued success to her efforts. This new venture, like many others, makes for a lot of additional and fairly complex inter-departmental planning.

Once more it is a pleasure to thank Mr. Beswick, the Physical Education Adviser for continued help and co-operation. Personal contacts such as we enjoy with him make for happy and constructive work for the school children.

Watching over the health of Canteen Staff and the hygiene of school provisions and premises provides additional safeguards, the numbers of examinations as set out on pages 42 and 43 testify to the work done.

The statistical tables on pages 44—47, as supplied to the Department of Education and Science, complete this Report.

The enumeration of its sections and facets set out above are by way of introduction and comment only, because I hope that members of the Committee and Council will read the whole of the Report, with its evidence of the work constantly growing in volume and variety undertaken by our Health Services for school children. Attendant responsibilities for its administration devolving on clerical officers in the Health Department demand increasingly good organisation and administration, and this our clerical staff increasingly supply.

Here indeed "He who runs may read"—of old and much new work undertaken by medical nursing and auxiliary workers in the field, and painstakingly and responsibly and efficiently planned and organised by the clerical and administrative staff of the Health Department.

I thank them all for their good work; the officers of the Education Department who have given us very helpful co-operation, and the Chairman and members of the Education (Welfare) Sub-Committee for their constant encouragement and consideration.

I have the honour to be

Your obedient Servant,

T. S. HALL,

PRINCIPAL SCHOOL MEDICAL OFFICER.

July, 1965.

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Morris, V.
Parry, N.
Ray, Miss A. D., J.P.
Sparrow, Dr. W. J.
Storrar, Mrs. R., J.P.
Tanswell, R. E.
Welch, Very Rev. Canon T. A.
Whiteford, W. C.

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Pilling, A. M.
Ray, Mrs. A. D.
Riddell, J. R.
Storrar, Mrs. R.
Tanswell, R. E.
Wedge, T.
Vacancy

MEDICAL, DENTAL AND ANCILLARY STAFF

Principal School Medical Officer :

THOMAS S. HALL, M.B.E., T.D., M.D., B.Ch., B.Sc., D.Obst.R.C.O.G., D.P.H.

Deputy Principal School Medical Officer :

*WILLIAM HALL, M.B., Ch.B., M.R.C.S., L.R.C.P., D.Obst.R.C.O.G., D.P.H.

Senior Medical Officer :

NORA V. CROWLEY, M.B., B.Ch., B.A.O., D.C.H., L.M.

Administrative Medical Officer :

ALICE N. O'BRIEN, M.B., Ch.B., D.P.H.

School Medical Officers :

KATHLEEN M. BALL, M.B., B.Ch., B.A.O., D.P.H. (part-time)
AGNES D. BARKER, M.B., Ch.B.
*ELIZABETH CAPPER, M.B., Ch.B., D.P.H.
*KENNETH CARTWRIGHT, M.B., Ch.B., D.P.H.
PATRICIA J. ELSON, M.B., B.S. (part-time) (appointed 15th April, 1964)
MYRA J. FREEMAN, M.B., Ch.B. (part-time) (appointed 10th March, 1964)
HENRY A. JOHNSON, M.B., Ch.B., M.R.C.S., L.R.C.P. (part-time)
KENNETH E. JONES, M.B., Ch.B.
FLORA MACDONALD, M.B., B.S., D.P.H.
*ALASTAIR COLIN MACKENZIE, M.D., Ch.B., D.P.H.
LUDWIK Z. MARCZEWSKI, Medical Diploma (Lwow, Poland)
*DOUGLAS R. MCCAULLY, M.D., B.A., B.Ch., B.A.O., D.P.H. (appointed 1st July, 1964)
*WILLIAM MOORE, M.B., B.Ch., B.A.O., D.R.C.O.G., D.T.M.H., D.P.H.
ELIZABETH R. POLLAND, L.R.C.P., L.R.C.S., L.R.F.P.S. (part-time)
*SAMUEL SMITH, M.B., Ch.B., D.P.H. (appointed 1st February, 1964)
*MARGARET H. F. TURNBULL, M.B., Ch.B., D.P.H.

Principal Dental Officer :

CHARLES D. CLARKE, L.D.S.

School Dental Officers :

Whole-time :
GEOFFREY G. FIELD, L.D.S.
NOEL GLEAVE, L.D.S.
PETER HOWE, L.D.S.
SUSAN HUGHES, B.D.S., L.D.S. (resigned 10th September, 1964)
GEORGE B. WESTWATER, L.D.S.
NORMAN WHITEHOUSE, B.Ch.D., L.D.S. (resigned 12th September, 1964)

Part-time :
MARTIN S. BROOKES, L.D.S. (appointed 5th October, 1964)
HARRY B. KIDNER, L.D.S., R.C.S.
REGINALD H. N. OSMOND, L.D.S.
JEAN W. PATTISON, L.D.S.

Consultant Orthodontists (part-time) :

BRIAN T. BROADBENT, F.D.S.
MICHAEL F. SCOTT, L.D.S.

*Also District Medical Officer of Health

Dental Technicians :

NORMAN J. RUSHWORTH
CLIVE EVERINGHAM

Dental Auxiliary :

PAMELA A. UPTON

Dental Hygienist :

NANCY SMITH

Consultant Children's Psychiatrist (part-time) :

BARBARA J. EVANS, M.D.(New York), B.S., L.R.C.P., M.R.C.S., D.P.M. (resigned 31st January, 1964)

Educational Psychologists :

JOHN L. GREEN, B.A.
DAVID R. JONES, B.Sc.(Hons.), Teacher's Diploma
MARGARET THOMAS, B.A. (part-time)

Psychiatric Social Workers :

KATHLEEN E. HUNT, B.A. (resigned 31st July, 1964)
RONNIE BAKER, R.M.N., S.R.N. (resigned 16th September, 1964)

Child Guidance Social Workers :

BETTY BOYCOTT, Social Science Diploma (London) (appointed 1st April, 1964)
RITA M. GARRARD, Social Science Diploma (London)

Audiologist/Senior Speech Therapist :

EDWARD PAULETT, L.C.S.T., Dip.Aud.

Speech Therapists :

JENNIFER A. BEE, L.C.S.T. (part-time)
JILL BELLIS, L.C.S.T., L.G.S.M.
CYNTHIA M. PERCIVAL, L.C.S.T. (appointed 31st August, 1964)
CYNTHIA D. WAGG, L.C.S.T. (appointed 31st August, 1964)

Physiotherapists :

CLARICE D. E. DUFFY (part-time) (appointed 1st January, 1964)
PAMELA NEELY (part-time) (appointed 14th September, 1964)

Consultant Chest Physician (part-time) :

ARTHUR T. M. MYRES, B.A., B.M., B.Ch., M.R.C.P., M.R.C.S., L.R.C.P.

Report for the year 1964

GENERAL

The area covered by the Local Education Authority comprises 861,800 acres; and in June, 1964, the home population, as estimated by the Registrar-General, was 311,880, an increase of 4,750 compared with 1963.

The number of pupils on the school register in 1964 was 48,639, compared with 47,814 in the previous year—an increase of 825.

At the end of the year, there were in the County of Salop, including the Borough of Shrewsbury, the following schools :

Non-Residential :	*Schools*	*Departments*	*Pupils on Register*
Nursery Special School	1	1	20
Nursery	3	3	131
Primary (County)	78	78	15,097
Primary (Voluntary)	159	159	13,291
Secondary Modern (County)	28	28	12,188
Secondary Modern (Voluntary)	2	2	827
Secondary Grammar (County)	11	11	4,640
Secondary Grammar (Voluntary)	5	5	1,572
Secondary Technical	1	1	489
Residential :			
Secondary	1	1	131
Special	3	3	174
Hospital	1	1	79
TOTAL	293	293	48,639

The table below shows the establishment of principal posts in the School Health Service and the staffing position at 31st December, 1964 :

	Establishment	*Staff at 31st Dec., 1964*
Principal School Medical Officer	1	1
Deputy Principal School Medical Officer	1	1
Senior Medical Officer	1	1
Administrative Medical Officer	1	1
School Medical Officers—whole-time	11	3
—part-time		11
Principal School Dental Officer	1	1
Dental Officers—whole-time	10	4
—part-time		4
Dental Auxiliaries	4	1
Orthodontists—whole-time	1	—
—part-time		2
Dental Hygienist	2	1
Dental Technician	2	2
Apprentice Dental Technician	1	—
Senior Dental Surgery Assistant	1	1
Dental Surgery Assistants—whole-time	12	9
—part-time		3
Audiologist/Senior Speech Therapist	1	1
Speech Therapists—whole-time	5	3
—part-time		1
Physiotherapists—whole-time	1	—
—part-time		2

Inclusive of the Principal School Medical Officer and his Deputy, the total medical staff undertaking all School Health Service duties, including administrative work, on 31st December, 1964, was equivalent to approximately $7\frac{1}{3}$ whole-time officers.

The nursing staff employed in the School Health Service at the end of 1964 comprised 4 whole-time and 6 part-time School Nurses, while part-time service was also rendered by 23 full-time and 1 part-time Health Visitors and 31 District Nurse-Midwives who were employed by the Local Health Authority.

MEDICAL INSPECTION AND TREATMENT

Routine Medical Inspections.—Section 48 of the Education Act, 1944, requires the Local Education Authority to provide for the medical inspection, at appropriate intervals, of all pupils in attendance at maintained schools, including County Colleges. This Section also requires parents to submit their children for such inspection when so requested by an authorised officer of the Authority.

Under the National Health Service Act, 1946, children can receive treatment from medical practitioners who have contracted with the Local Executive Council to provide general medical services ; and children found on examination by a School Medical Officer to be suffering from any defect are, save for certain agreed conditions, referred to their own doctors. Such pupils are followed up by the School Nurses and any necessary specialist advice or treatment is arranged either through the family doctor or directly with one or other of the hospitals in the area of the Birmingham Regional Hospital Board, as listed on page 14.

The School Medical Officer and Nurse should confer with the family doctor about children in whose health they are all concerned, and if each tries to understand the functions and responsibilities of the other, their work can be integrated in the child's interests.

Generally, parents take much interest in the School Health Service, and the majority with children in the younger age groups attend routine medical inspections. If any special problem is raised by a parent when meeting the School Doctor at routine medical inspections, a special appointment can be made for a fuller review or examination at home or at a school clinic (see page 11 in this Report).

The school leaver's routine medical inspection at about 14 years is aimed at assessing the child's health so that any necessary treatment may be arranged, or advice given before he or she leaves school. Any reluctance of the older children to discuss their problems or accept advice is lessened by the growing custom of teachers and medical officers discussing adolescent difficulties in a friendly and uncensorious atmosphere with the pupils, who seem generally to appreciate in this connection our more recent efforts, as elaborated on page 40 of this Report.

Local Education Authorities have power to modify medical inspection procedure by discontinuing certain routine examinations and arranging instead for the examination of children, selected, not by age but by other criteria such as lack of physical or educational progress, high rate of absenteeism, or from lists drawn up by the Headteacher, School Medical Officer and School Nurse in consultation.

In this County the following procedure obtains :

(i) *Routine Inspections :*

Routine medical examinations are carried out of pupils in three age groups (*a*) Entrants—on admission to school, usually 5 years, (*b*) Intermediates—at 11 years, and (*c*) Leavers—at approximately 14 years.

School Nurses are asked to visit each school prior to the inspection to test the vision of all children listed for examination.

Routine examination of the 8 year olds has now been dispensed with, but all pupils noted for re-examination an account of a defect and any referred for special examination by the Head of the school are seen by the examining Medical Officer once a year. Every pupil in the 8 year group, however, undergoes a vision test by the School Nurse as mentioned above. Heads are encouraged to refer children in this age group for special examination because the interval between the first and second routine examinations is now six years.

There were approximately 48,000 pupils on the School Register in 1964, with about one third due for routine examination. The number having routine inspection was in fact 13,354. In an area, the numbers examined vary with the numbers of the Medical Officers employed, and the other demands made upon their time. Vaccinations, immunisations, health education talks, and an increasing amount of audiology which is a very valuable service, reduce time available for routine medical inspections.

(ii) *Special Inspections and Re-examinations :*

In addition to the inspection of pupils in the three age groups mentioned in Section (i) above, special examinations are made of pupils referred on account of defects by Head Teachers or School Nurses, including children who are in need of special educational treatment. Annual re-examinations are also made of children found to have a defect requiring observation.

The numbers of pupils examined as specials and re-examinations in 1964 were 1,644 and 8,604 respectively, making a total of 10,248 examinations.

Co-operation and Co-ordination.—Good co-operation exists between School Medical Officers, School Nurses and Family Doctors. It is helpful to discuss any problem with the child's general medical practitioner and this method appears to work to mutual advantage and makes for a better service for the children.

Appreciation is acknowledged of the help and co-operation of Head Teachers who, often at some inconvenience to themselves, make the school medical inspections successful. Our School Health work is generally recognised as an important part of the Local Education Authority's statutory commitments.

N.S.P.C.C. Inspectors are extremely helpful in helping children from unsatisfactory homes, and the Education Welfare Officers assist in securing the attendance of pupils for special examinations of all types.

The Shrewsbury Branch of the British Red Cross Society have been helpful in providing escorts to accompany handicapped children travelling to and from Convalescent Homes.

To these, to the St. John Ambulance Brigade Association, to the Women's Voluntary Services and to many kind individuals who provide Services for children on their behalf, we record our grateful thanks.

Treatment of Eye Conditions.—In order that children may obtain maximum benefit from education it is essential that any impairment of their visual senses should be detected early and as far as possible corrected. A child's ability to learn is closely related to the possession of normal vision and Health Visitors and School Nurses impress upon parents that special attention should be given to ophthalmic conditions.

The five-year old groups are tested shortly after entry to school with special material so that visual defects may be detected and remedied as formal education begins. Our Ophthalmic Consultants are pleased that children thought to be suffering from squint are now being referred at a much earlier age with correspondingly more satisfactory results after treatment.

During the year, 4,184 children were dealt with for defective vision or other eye conditions, 3,881 being referred to Ophthalmic Medical Practitioners or Ophthalmic Opticians, and 303 being treated by Ophthalmic Consultants at the Shrewsbury Eye, Ear and Throat Hospital.

Of the 14,998 pupils examined by School Medical Officers, 11 were noted as having had squint operations during the year, and 49 to be receiving orthoptic exercises ; 41 other pupils were referred for specialist treatment on account of squint ; and 188 more were noted for observation for the same condition.

A number of reports are received from School Nurses that children, mainly the older ones for whom spectacles are prescribed, do not wear them and it has been necessary to write to parents to secure their co-operation since the remedy lies mainly in their hands.

Defects of Ear, Nose and Throat.—Attitudes towards these conditions have, with respiratory illnesses, changed in character and incidence over the last twenty years. The school population is now healthier with higher living standards and better material social and medical care ; and less surgical treatment is needed in this field. Where treatment is needed, the advice and treatment of the Consultant Otolaryngologists are readily available.

Of the 14,998 children medically examined by the School Medical Officer 90 were referred to the Ear, Nose & Throat Specialist during 1964 and another 1,350 were noted for observation on account of tonsil and adenoid conditions.

Operations for the removal of tonsils and adenoids were performed on 497 Shropshire school children in hospitals of Nos. 15 and 16 Hospital Management Committee Groups. This number includes children attending private and independent schools not maintained by the Local Education Authority and who are, therefore, outside the scope of the School Health Service.

Orthopaedic Defects.—There are seven Orthopaedic After-Care Clinics in Shropshire attended by an Orthopaedic Specialist and an Orthopaedic Nurse.

During 1964, of 14,998 pupils medically examined by the School Medical Officers, the following were noted as suffering from varying degrees of orthopaedic defect and referred to the Orthopaedic Surgeon where treatment was considered necessary :

	Treatment	*Observation*
Posture	5	193
Feet	23	531
Other Conditions ..	27	449

Defects of posture or feet account for an appreciable number of orthopaedic defects and during the year, 48 pupils were found by School Medical Officers to be receiving corrective exercises by Physical Education Specialists in schools.

Diseases of the Skin.—The numbers of Shropshire school children known to have been treated during 1964 for diseases of the skin (other than of the feet) are indicated below :

Ringworm—scalp	6
—body	9
Scabies	4
Impetigo	11
Other skin diseases ..	40
TOTAL ..	70

Care of the Feet.—Since 1959, foot inspections of pupils in attendance at Grammar, Technical Modern and Senior Schools have been carried out by School Medical Officers.

Not infrequently the spread of Plantar Warts and Athlete's Foot is ascribed to educational activities such as the bare foot type of dancing approved by the Education and Science, and the County Physical Education Departments, and to swimming baths. Much of the evidence, however, is conflicting and scarcely supports these views. Children found on inspection to have plantar warts are excluded from swimming, showers and participation in bare foot physical education until the condition has been treated and cured. Cases discovered are kept under observation by the School Nurse, who also ensures that treatment is obtained.

Particular attention is paid in schools to the most likely spots for the spread of infection, e.g. changing rooms, gymnasium floors and shower baths and these are disinfected. About eighteen months ago, a new type of biocide detergent was introduced to about thirty schools in the County and the results are being closely followed-up by the County Public Health Inspector in liaison with the Physical Education Adviser.

During 1964, the School Medical Officers carried out 24 special foot inspections involving 8,226 pupils and 258 cases of Verruca (145 already having treatment and 113 which had not been diagnosed) were discovered. In addition School Medical Officers found 452 cases of suspected Athlete's Foot (43 under treatment and 409 undiagnosed) together with 145 other foot conditions which usually took the form of cracked, peeling and soggy skin. Cases of Verruca and Athlete's Foot not under treatment were referred to the family doctors and followed-up by the School Nurse.

Footwear.—Correct footwear for school children is still a problem in the "teenage" group. Naturally these children want to be fashionable and they will wear most unsuitable shoes. During Health Education talks and at school medical inspections, emphasis is placed upon the need for suitable footwear and it is reassuring to note that shoe firms are now making shoes which are both fashionable and suitable. Parental guidance is most essential in this field.

Treatment of Minor Ailments.—Since the introduction of the National Health Service Act in 1948, minor ailment clinics do not play a large part in school work, since most of the conditions which would normally be seen at such clinics are dealt with by the family doctor. Some minor ailment clinics are in fact still held but these are run in conjunction with other child welfare clinics.

At the "School Nurse" session and the "School Doctor" sessions at Bridgnorth, Market Drayton, Oswestry and Wellington Welfare Centres, 76 children made 86 attendances in 1964. Examinations by the School Doctor totalled 49 and 27 of the children were referred to their own doctor.

Nutrition.—According to the reports of all the School Medical Officers, Shropshire school children seem healthier than they have ever been. In the post-war years there has been a steady improvement in the physical standard and nutrition of children in maintained schools and this is a reflection of the present high living standards. The nutrition figure which attained 100% in 1961 has since remained at that level. General improvement in the satisfaction of material requirements has reduced physical ailments to a minimum. In a few cases satisfactory nutrition has been followed by obesity and School Medical Officers at medical inspections advise children and parents about diet.

Convalescence.—On the recommendation of School Medical Officers, fourteen pupils were provided with free holiday convalescence during 1964. Selected cases were those where rest, good food and fresh air were essential to recovery and generally these children came from poor or problem homes.

Holidays usually of a few weeks duration were arranged through the School Health Service and under a scheme quite distinct from convalescence provided through the National Health Service.

If a fairly long period of treatment is required, the child is regarded as a delicate pupil and placed in an open air school.

Cleanliness Inspections.—School Nurses carry out routine inspections for verminous infestation of pupils in all Primary Schools, follow-up inspections being made of pupils found to have nits or lice. Such inspections in Secondary Modern, Technical and Grammar Schools are now arranged only at the request of the Heads.

Following cleanliness inspections in Primary Schools early each term, an Informal Cleansing Notice is issued to the parent of any pupil found to be verminous. Such pupils are re-examined one week later. If still found to be verminous, Formal Cleansing Notices are served on the parents, requiring them to disinfest and to present the children for re-examination by the School Nurse at the end of three days. If at this latter re-examination a pupil is found to be still verminous, a Formal Cleansing Order may be issued from the School Health Office instructing the Nurse to convey the pupil to the nearest School Clinic to be cleansed by her.

During 1964, a total of 101,310 head inspections was carried out by the School Nurses, and of the 35,310 pupils on the registers of schools inspected 1,076 children were found to be verminous, some on more than one occasion. This represented a figure of 3.0 per cent of the school population who were found to be verminous during the year.

It was found necessary during the year to issue 28 Formal Cleansing Notices and 4 Cleansing Orders. No legal proceedings were instituted in this connection during the year.

Infestation is mainly confined to children whose home conditions are unsatisfactory. In such cases School Nurses have the task of dealing with parents and older members of the household, who neglect personal hygiene and consequently re-infest the younger children.

Work of School Nurses.—School Nursing is undertaken by 10 School Nurses (4 whole-time and 6 part-time), 24 Health Visitors (23 whole-time and 1 part-time) and 31 District Nurses (who are estimated to devote about 7 per cent of their time to this work). In addition to their visits to schools for head inspections the School Nurses are required to attend routine medical inspections.

Children ascertained by the School Medical Officer to be suffering from defects of any kind are either referred to the family doctor for treatment or noted for observation; and the subsequent follow-up work of the School Nurses, together with the number of days given to routine medical inspections, is indicated in the following table :

Staff	Staff		Medical Inspection days	Treatment Cases				Observation Cases			Totals	
	Number	Whole-time equivalent		Visited	Not Visited	Total	Treated	Visited	Not Visited	Total	Cases	Visits
School Nurses	4	4	201	1,573	283	1,856	1,807	231	85	316	2,172	3,162
Part-time School Nurses	6	0.889	99	133	306	439	493	158	229	387	826	366
Health Visitors	24	6.502	273	878	827	1,705	1,666	431	386	817	2,522	1,606
District Nurses	31	2.6	74	709	140	849	812	197	76	273	1,122	1,422
TOTAL ..	65	13.991	647	3,293	1,556	4,849	4,778	1,017	776	1,793	6,642	6,556

Employment of Children.—In accordance with the provisions of Section 59 of the Education Act, 1944, all pupils reported by the Secretary for Education as being engaged in work outside school hours are examined by a School Medical Officer to ensure that they are not being employed in a manner likely to be prejudicial to health or to render them unfit to obtain the full benefit of education.

After this initial examination, each child is seen annually at routine medical inspection, or at an earlier date if the School Medical Officer recommends such an arrangement.

Only children of 13 years or more are allowed to take up employment, which is restricted by statute and may not exceed two hours on school days. Work before 7 a.m. is prohibited. Employment in a number of occupations connected with hotels, public entertainments, licensed premises, racing tracks, etc., is prohibited and no child may be employed to lift, carry or move anything so heavy as to be likely to cause him injury.

Experience shows that part-time work is in no way harmful to most children; it gives them a sense of responsibility and acts as an introduction to full-time employment.

Of 599 pupils examined during 1964, it was necessary to recommend cancellation of employment in only one case, and re-examination in one other case after an interval of three months.

Medical Inspection of Pupils resident in Hostels, Boarding Schools and Special Boarding Schools.—Special arrangements are made for the medical examination of children in hostels and boarding schools, or resident in special boarding schools within the County, as under :

Bridgnorth	..	Apley Park	Residential
Ellesmere	..	Petton Hall	Residential
Ludlow	..	Grammar School for Boys	Hostel
Newport	..	Grammar School for Boys	Hostel
Oswestry	..	Oakhurst (Oswestry Girls' High School)	Hostel
Shifnal ..	..	Haughton Hall	Residential
Shrewsbury	..	The Elms (Shrewsbury Technical and Technical High School for Girls)	Hostel
		Sutton Lodge (Shrewsbury Technical School and Technical High School for Boys)	Hostel
Wem ..	..	Trench Hall	Residential
Whitchurch	..	Grammar School for Boys	Hostel

During 1964, School Medical Officers examined 569 pupils in residence, anything relevant to the well being of the children being passed on to the Matron of the Hostel or the Head of the School. Every pupil in these residential establishments is on the list of a local Medical Practitioner providing General Medical Services under the National Health Service Act.

Arrangements were also made during the year, at the request of the Robert Jones and Agnes Hunt Orthopaedic Hospital authorities, for the local School Medical Officer to undertake vision testing of approximately 80 pupils attending the Hospital School. These tests are carried out each term and pupils having defective vision are referred to an Ophthalmic Consultant for treatment.

Education of Children in Hospitals.—The Robert Jones and Agnes Hunt Orthopaedic Hospital have a permanent arrangement with the Education Committee for the provision of special educational facilities. At Copthorne and Monkmoor Hospitals, Shrewsbury, patients recommended for special tuition attend a class held regularly at the hospitals by tutors provided by the Education Committee.

In other hospitals in the County, when a child is admitted whose stay is likely to be prolonged, special arrangements are made for individual tuition if the medical condition permits.

SCHOOL CLINICS PROVIDED BY THE LOCAL EDUCATION AUTHORITY

The following is a list of clinic sessions made available by the Local Education Authority at which school children may attend. School doctors' sessions operate concurrently with general child welfare clinics. In addition to the clinics listed, there are two Mobile Dental Units which are operated in the north and south of the County respectively. The times at which clinics are held are liable to be modified, but up-to-date information on clinic sessions may be obtained from the Health Department at College Hill, Shrewsbury, or from the School Medical Officer concerned at a local level.

List of School Clinics as at 1st March, 1965

Medical Officer and District	Centre	Frequency of Sessions
Dr. Barker Wem	Wem	Audiology — As required Dental — Four sessions weekly
	Petton Hall	Speech Therapy — One session weekly
Dr. Capper Ludlow	Bishop's Castle	Audiology — As required
	Church Stretton	Audiology — As required
	Cleobury Mortimer	Audiology — As required
	Ludlow	Audiology — One—two sessions monthly Child Guidance — Two sessions monthly Dental — Four sessions weekly Ophthalmic — Three sessions monthly Speech Therapy — Two sessions weekly
Dr. Cartwright Dawley— Madeley	Dawley	Audiology — One session monthly Dental — Two sessions weekly Speech Therapy — One session weekly
	Madeley	Audiology — As required Dental — Six sessions weekly Orthopaedic — Two sessions monthly Speech Therapy — One session weekly
Dr. Freeman Hadley— Newport	Hadley	Audiology — As required School Doctor — One session monthly
	Hadley (Modern School)	Speech Therapy — Two sessions weekly
	Newport	Audiology — As required Dental — Three sessions weekly Speech Therapy — One session weekly
Dr. McCaully Market Drayton	Market Drayton	Audiology — One session monthly Child Guidance — As required Dental — Four sessions weekly School Doctor — One session weekly Speech Therapy — One session weekly
Dr. MacDonald Wellington	Oakengates	Audiology — One session monthly Dental — As required
	Wellington	Audiology — One session weekly Child Guidance — Three sessions weekly Dental — Eight sessions weekly School Doctor — One session weekly Speech Therapy — Two sessions weekly

Medical Officer and District	Centre	Frequency of Sessions	
Dr. Mackenzie Shrewsbury	1 Belmont	Audiology	One—two sesssions weekly
		Speech Therapy	Four session weekly
	5 Belmont	Dental	Sixteen sessions weekly
	Condover Hall, nr. Shrewsbury	Speech Therapy	One session weekly
	Nursery Special School (Woodcote Way)	Speech Therapy	Three sessions weekly
		Hearing Assessment	Three sessions monthly
	Education Office, County Buildings	Child Guidance	Six sessions weekly
	Junior Training Unit (Woodcote Way)	Speech Therapy	One session weekly
	White House	Audiology	As required
Dr. Marczewski Shifnal	Albrighton Junior School	Audiology	As required
	Haughton Hall Special School	Speech Therapy	One session weekly
	Much Wenlock	Audiology	As required
	Shifnal	Audiology	One session monthly
Dr. Moore Oswestry	Oswestry	Audiology	Two—three sessions monthly
		Child Guidance	As required
		Dental	Four sessions weekly
		Ophthalmic	Two sessions monthly
		Orthopaedic	One session weekly
		School Doctor	One session weekly
		School Nurse's Session	One session weekly
		Speech Therapy	Two sessions weekly
Dr. Smith Ellesmere—Whitchurch	Ellesmere	Audiology	As required
		Dental	Four sessions weekly
	Whitchurch	Audiology	Two sessions monthly
		Dental	Four sessions weekly
		Speech Therapy	One session weekly
Dr. Turnbull Bridgnorth	Bridgnorth (Northgate)	Audiology	One—two sessions monthly
		Dental	Four sessions weekly
		School Doctor	One session monthly
		Speech Therapy	One session weekly
	Highley	Audiology	As required

HOSPITAL AND SPECIALIST SERVICES

Children found to be suffering from defects requiring either the advice of a Consultant or in-patient treatment are referred, preferably in collaboration with their family doctor, to the following hospitals, all of which come under the Birmingham Regional Hospital Board. Children suffering from chest conditions are seen by a Chest Physician at one of the Chest Clinics.

General Medical and Surgical Conditions :

The Royal Salop Infirmary, Shrewsbury
Copthorne Hospital, Shrewsbury
The North Staffordshire Royal Infirmary, Stoke-on-Trent
The Kidderminster and District General Hospital, Kidderminster
The Wolverhampton Royal Hospital, Wolverhampton
The Staffordshire General Infirmary, Stafford

Eye Conditions :

The Eye, Ear and Throat Hospital, Shrewsbury
The North Staffordshire Royal Infirmary, Stoke-on-Trent
The Staffordshire General Infirmary, Stafford
The Kidderminster and District General Hospital, Kidderminster
The Wolverhampton and Midland Counties Eye Infirmary, Wolverhampton

Ear, Nose and Throat Conditions :

The Bridgnorth and South Shropshire Infirmary, Bridgnorth
Copthorne Hospital, Shrewsbury
The Eye, Ear and Throat Hospital, Shrewsbury
Ludlow and District Hospital, Ludlow
Oswestry and District Hospital, Oswestry
Shifnal Cottage Hospital, Shifnal
Whitchurch Cottage Hospital, Whitchurch
New Cross Hospital, Wolverhampton
The North Staffordshire Royal Infirmary, Stoke-on-Trent
The Staffordshire General Infirmary, Stafford
The Kidderminster and District General Hospital, Kidderminster
The Wolverhampton Royal Hospital, Wolverhampton

Orthopaedic Conditions, including Fractures :

Royal Salop Infirmary, Shrewsbury
The Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry
The Kidderminster and District General Hospital, Kidderminster

X-ray Treatment of Ringworm :

The Midland Skin Hospital, Birmingham

Special Forms of Treatment not elsewhere available :

The Birmingham Children's Hospital, Birmingham

HANDICAPPED CHILDREN

Case-finding of Handicapped Pupils.—The Education Act, 1944, brought provision for the education of handicapped children within the framework of the educational system and imposed upon Local Education Authorities the duty of providing sufficient suitably equipped and staffed schools to give all pupils the opportunity of education consistent with age, aptitude and ability. Authorities were also given the specific duty of finding children who require special educational treatment and of providing this, if necessary, from the age of two years.

A handicapped child may be defined as one suffering from a disability of mind or body which is likely to interfere with normal growth, development and ability to learn. Approximately one child in every hundred who survives the hazards of the neonatal period may ultimately require special care, treatment and parent guidance for some form or other of severe handicap. The modern approach to the problem of the handicapped child emphasises the importance of planning medical and educational treatment in such a way as to concentrate on the child's potential rather than his particular handicap, and to care for him in his own home rather than in residential accommodation in order that he may take his rightful place in the community.

For the purposes of the Education Act there are ten categories of handicap, as follows :

Blind	Educationally subnormal
Partially sighted	Epileptic
Deaf	Maladjusted
Partially hearing	Physically handicapped
Delicate	Speech defective

Detection and Ascertainment.—Notifications of birth are received by the Local Health Authority and forwarded to their Health Visitors, who take responsibility for visiting the home and advising the parents from the eleventh day of the child's life.

Children suffering from obvious handicaps such as total deafness, severe physical disability, etc., are discovered long before they reach school age and the Health Visitors continually watch for any signs of handicap. The need for early discovery must be stressed, and parents, family doctors, school medical officers, health visitors and teachers should refer any child thought to be suffering from a handicap so that assessment and any special educational treatment or training may be decided upon without harmful delay.

Two registers are maintained in the School Health Service Section—a "Register of Handicapped Pupils" and an "At Risk" Register, the latter giving details of all children in whom the possibility of deafness caused by adverse influences in the pre-natal and post-natal periods is considered to be the greatest, e.g. premature infants, twins, children of mothers who have had a virus infection during pregnancy, etc. These "At Risk" categories are referred to again under "Deafness' on page 28 of this report. Consultant Paediatricians advise the School Health Service about any handicapped children who are under their care.

During 1964, pupils ascertained under the provisions of the Handicapped Pupils and School Health Service Regulations numbered 381—351 by School Medical Officers and 30 by the Consultant Psychiatrist, and a summary of the findings and recommendations to the Local Education Authority is given below. In addition 229 children found to be speech defective were brought under treatment by the Speech Therapists, whilst a further 432 children were found at the Medical Audiology Clinics to have defective hearing as a result of which recommendations and referrals were made in 323 of these cases.

HANDICAPPED PUPILS

Category	Pupils Specially Examined	Not Handicapped	Temporary exclusion from School	Special Educational Treatment Recommended			Reported to Local Health Authority		Pupils not requiring supervision on leaving school	Under treatment by Psychiatrist
				In Ordinary School	In Special School	Home Tuition	Unsuitable for education at school	Friendly supervision on leaving school		
Blind	3	—	—	—	3	—	—	—	—	—
Partially Sighted	3	—	—	—	3	—	—	—	—	—
*Deaf	—	—	—	—	—	—	—	—	—	—
*Partially Hearing	—	—	—	—	—	—	—	—	—	—
Delicate	26	—	—	—	17	9	—	—	—	—
Educationally Sub-Normal	292	28	—	139	51	1	30	35	8	—
Epileptic	9	—	—	—	6	3	—	—	—	—
Maladjusted	30	—	—	—	20	3	—	—	—	7
Physically Handicapped	18	—	—	—	3	15	—	—	—	—
TOTAL	381	28	—	139	103	31	30	35	8	7

* All children suspected of being deaf or partially hearing are now dealt with not by the individual School Medical Officer but by a Specialist Audiology Team, whose recommendations are referred to on page 31.

As well, the Medical Officers also carried out a further 452 examinations of handicapped pupils in connection with unsatisfactory school attendance, the provision of transport to and from school and the review of home tuition cases.

The following table gives details of the numbers of pupils ascertained by the School Medical Officers and Consultant Psychiatrist during the period 1955 to 1964 :

		(1) Blind (2) Partially-sighted (3) Deaf			(4) Partially hearing (5) Delicate (6) Educationally subnormal			(7) Epileptic (8) Maladjusted (9) Physically handicapped			
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	TOTAL
Examined :	1955	3	4	2	—	53	264	1	14	22	363
	1956	2	4	4	5	60	363	2	41	18	499
	1957	5	5	—	2	35	341	4	43	22	457
	1958	2	2	—	11	24	204	5	120	34	402
	1959	1	3	1	6	36	247	2	116	39	451
	1960	1	—	4	3	42	299	1	62	35	447
	1961	—	2	2	2	31	283	5	65	18	408
	1962	2	2	—	3	21	247	1	99	22	397
	1963	—	3	1	2	15	252	6	99	21	399
	1964	3	3	—	—	26	292	9	30	18	381
Recommended for Special School :											
	1955	3	4	2	—	41	61	—	10	7	128
	1956	2	4	3	5	31	110	1	7	9	172
	1957	5	5	—	2	22	78	4	16	12	144
	1958	2	2	—	11	18	46	5	13	10	107
	1959	1	3	1	6	30	48	2	12	7	110
	1960	1	—	4	3	27	59	1	10	10	115
	1961	—	2	2	2	21	71	5	15	9	127
	1962	2	2	—	3	16	52	1	20	10	106
	1963	—	3	1	2	11	43	5	15	8	88
	1964	3	3	—	—	17	51	6	20	3	103

Report to Local Health Authority.—The Mental Health Act, 1959, which came into force in November, 1960, amended Section 57 of the Education Act, 1944, and introduced certain changes in the law relating to children of the age of two years or more who suffer from a disability of mind rendering them unsuitable for education at school. The effect of these changes is broadly to extend the rights of parents, to amend legal procedure in some respects, and to simplify some of the administrative arrangements.

During 1964 a total of 65 children was recommended for report to the Local Health Authority under Section 57 of the Education Act as amended—30 under sub-section 4 as being unsuitable for education at school and 35 as being in need of friendly supervision after leaving school. The comparable figures for 1963 were 32 and 35 respectively.

Shrewsbury Nursery Special School.—The following account of this interesting innovation has been compiled from the contributions of Mr. A. I. Rabinowitz, B.A., the new school's Principal, whose work in integrating the educational, medical and social considerations affecting the handicapped children has been so consistent and constructive in getting the programme, conceived so long ago and gradual in its gestation to such a successful start in its new permanent premises.

Begun by the Education Department in 1958 as an experimental class for handicapped children under school age, the objectives have been to bring children into contact with each other, to help them to develop a sense of independence, to assess their mental and physical potential and to give the parents guidance in dealing with their children's management.

Since April, 1961, the Unit had been held at the Claremont Baptist Church Hall, Shrewsbury, but in September, 1963, it moved to a pre-fabricated classroom at Monkmoor Girls' Modern School, which offered greatly improved facilities. In September, 1964, the Unit was transferred to a newly constructed and fully equipped Centre situated at Woodcote Way, Monkmoor Road, Shrewsbury, and was re-named the Shrewsbury Nursery Special School. The new Unit was built from money provided by the Carnegie & Sembal Trusts, but many of the very desirable refinements, such as special chairs and tables, were given by the local branch of the Spastics Society, who have been more than generous. The four aims of the Centre are assessment, education, guidance and co-operation. Children are admitted for appropriate periods of assessment so that decisions concerning their future may be taken in the fullest possible knowledge of their potential and attainments. The School provides for education and social training consistent with the attainments, handicaps and needs of the children.

The staff of the School and Medical Specialists who visit it in a consultant capacity are available to give advice and help to parents. The School forms a focal point where parents, teachers, specialists and consultants meet to discuss common problems and ways of meeting them.

The children in the school may come from any part of the County, provided that the journey can be completed witin a reasonable time, and transport is provided by the Local Education Authority. The range of handicaps in the School is intentionally wide—the blind and partially-sighted, the partially hearing, those with cerebral palsy and other physical handicaps and a smaller number of children whose major problems are social or intellectual. This integration is deliberate for the children help and stimulate one another.

Of the 23 children who attended the Nursery Special School :

8 had defects associated with cerbral palsy
1 was blind
3 were partially sighted
3 had physical handicaps
2 were psychotic
2 were retarded
1 had a speech defect
1 had a cardiac condition
1 suffered from Hirschsprung's disease
1 was normal (this child was a twin of another handicapped child in the Unit)

Children are admitted to the school between the ages of 2 and 7 years, and remain there as long as the regime of the school is of benefit to them, or until their period of assessment is satisfactorily completed and a suitable placement is found for them.

Besides the Principal, who is a Psychologist with many years' experience of teaching in ordinary and special education, the staff of the school, which at present accommodates about 23 children, includes two assistant Teachers and 4 Nursery Assistants. Their work is complemented by that of three part-time Physiotherapists, our Audiologist/Speech Therapist, a Social Worker who is a trained Health Visitor with special experience, and Medical Consultants.

Dr. J. C. Macaulay, Consultant Paediatrician, and Mr. G. K. Rose, Consultant Orthopaedic Surgeon, have special close connections with the school and hold Assessment Clinics there, whilst Mr. E. N. Owen, Aural Surgeon, also attends Hearing Assessment Clinics which are arranged at this school.

As regards doctors in our School Medical Service, much valuable work done in the past by Dr. N. V. Crowley, Senior Medical Officer, has been acknowledged in previous reports. During the latter part of the year, while Dr. Crowley has been away, Dr. A. D. Barker attended the school for an average of three sessions every fortnight, and made physical examinations of the children as well as getting to know the parents.

Mrs. C. Duffy and Mrs. P. Neely supplied all the physiotherapeutic services, using the specially equipped department as well as the Hydrotherapy Pool.

This last named, a particularly valuable addition to the amenities, was provided with the help of moneys made available by Mr. Richard Hearne ("Mr. Pastry") from the charities sponsored by him for such swimming pools. His generous expenditure of time and effort for good causes is nationally well-known and appreciated, and it was particularly pleasant to have him present in person when the School was opened. Baroness Elliot of Harwood, who had been Chairman of the Steering Committee which guided the Carnegie Survey into the needs of young handicapped children and their families, and who has since been appointed Chairman of the Carnegie United Kingdom Trust, performed the opening ceremony before a large gathering on 10th December, 1964.

The Education Committee on 19th June, 1965, and with Lady Elliot's permission, recommended the Council to name this new venture "The Katharine Elliot School".

Again by the kindness of Mr. Hearne, the School seems likely to obtain for the pupils' use a "Sunshine Coach" such as has already been made available for many children's organisations by the generosity of the Variety Club of Great Britain.

In the main the health of the children has been good and the rate of absence through illness relatively low.

Home Visiting by School Medical Officers.—It is in the field of the handicapped child that the School Medical Officer is offered the fullest scope and is increasingly being called upon by parents for advice. Much of the work of the School Health Service is concerned with the moral and social

problems of the children in addition to their health and educational progress and parents and school staffs can co-operate to help pupils to become healthy and responsible adults to take their appropriate places in the community.

Home is at all times the place where relationships are most powerful in shaping a child's personality ; mental development and security depend upon and are influenced by the family background. It is in this sphere that the Medical Officer can help parents with the many problems to which a handicapped child is heir, advising them how best to use all that is available through the National Health and School Health Services. Our School Medical Officers are given lists of handicapped children living in their areas and they are expected to pay special attention to these children, either in school or by home visiting. In most instances the parents are able to cope well with the handicapped child, but where special advice is necessary this is given by the Medical Officers. Some cases have to be referred to the Central Office for further discussion and suggestions.

Until September, 1964, Dr. N. V. Crowley, Senior Medical Officer, spent during the year approximately one day per month on home visiting (an average of 60 visits per annum). Accompanied by Miss M. E. M. Evans, a Health Visitor specially trained in hearing testing techniques, she visited the homes of very young handicapped children to examine and assess them, to discuss the question of their educational future with the parents and in general to give them help and guidance in the understanding and management of their children. Details of those young children who are considered suitable for attendance at the Shrewsbury Nursery Special School for Handicapped Children referred to on page 17 are passed to the Secretary for Education.

In September, Dr. Crowley left the County for Dublin University where until June, 1965, she has been studying for a Diploma in Public Health. In her absence Dr. A. D. Barker was asked to undertake this aspect of School Health Service work. In fact and since the advent of Mr. Rabinowitz as Principal, he and Miss Evans as Social Worker have themselves been visiting at their homes all those children who attend or are recommended for future admission.

The following are the numbers of handicapped children in the various categories who received domiciliary visits. They are, of course, also seen in the schools and clinics: home visits are carried out as often as the Medical Officers consider necessary.

HANDICAPPED PUPILS REQUIRING HOME VISITING

	Pupils on List	*No. Visited*	*No. not Visited*	*Visits made*
Blind	14	12	2	18
Partially-sighted	29	24	5	38
Deaf	15	9	6	10
Partially Hearing	75	51	24	74
Some Hearing Loss	49	32	17	35
Delicate	177	130	47	157
Educationally Subnormal	551	349	202	437
Epileptic	89	61	28	92
Maladjusted	27	18	9	35
Physically Handicapped	287	198	89	273
Speech Defective	17	16	1	20
	1,330	900	430	1,189

Supervision of School Leavers.—The importance of providing help, guidance and after-care for handicapped children leaving school cannot be over emphasised. The time of leaving school and taking one's place in the community is the most difficult and critical in the life of any young person. In the case of the handicapped, however slight the handicap, this transition period may be full of anxieties and difficulties.

To obtain and keep an occupation is of the greatest importance, and is, for a young person, a critical opportunity to discover his acceptability as a useful member of the community.

The School Medical Officer, at the last routine medical examination of each pupil, makes a report if he considers the pupil unsuitable for work of any particular type. When the pupil leaves school this report is sent by the Head together with the "School Leaving Report," to the Local Officer of the Ministry of Labour or to the Youth Employment Officer. It is then used by the Vocational Guidance Officer to ensure that any pupil, on leaving school, is not placed in employment for which he or she is either mentally or physically unsuited.

Handicapped pupils are also encouraged to enrol in the Register of Disabled Persons and so obtain through the Ministry of Labour sheltered employment and also special educational training open to Registered Disabled Persons.

Since 1959 special arrangements have been made to deal with the problem of after-care for pupils leaving Petton and Haughton Hall Residential Schools. Liaison between the Secretary for Education and Special Schools and the Youth Employment Service has always been close and Mental Welfare Officers and Youth Employment Officers do, in suitable cases, visit the special school before the child actually leaves, and follow-up each case at home to ensure that the child settles down in employment and becomes satisfactorily adjusted to post-school life with its personal and social problems.

School leavers from Haughton Hall and Petton Hall who require supervision are now followed up by the Female and Male Mental Welfare Officers respectively and arrangements have been made for these officers to attend the case conferences at the Special Schools concerned.

"The Handicapped School Leaver," a report by a working party set up by the British Council for Rehabilitation of the Disabled to examine the provision made for the handicapped school leaver, was published towards the end of 1964. One of the chief recommendations was that local authorities should review their practice in this field and should consider the establishment of machinery for the unified discharge of their responsibilities.

In Shropshire, arrangements for the continued supervision of handicapped school leavers and for their placing in employment vary from school to school, but in the majority of cases they work satisfactorily, particularly for leavers in the Education Committee's own schools. In a number of cases, however, particularly when the school leaver has attended a special school outside the County, there may be difficulties.

In the interests of uniformity of procedure throughout the County, and to keep the cases of handicapped children constantly under review in the twelve months preceding the school leaving date and for the following five years, an After-Care Committee has been set up and will co-ordinate the efforts of the various bodies concerned, namely the Education, Children's, Health and Welfare Departments, and the Ministry of Labour's Rehabilitation and Youth Employment Service.

Special Residential Schools for Educationally Subnormal Pupils.—Special Residential Schools for children who are educationally subnormal are provided by the Local Education Authority —boys at Petton Hall (92 places) and girls at Haughton Hall (62 places). The pupils have intelligence quotients between 50 and 80 and stay until 16 years of age.

Because of the unsatisfactory condition in which some of the pupils were returning to the schools after holiday periods, Health Visitors make "follow-up" visits during each holiday to the homes concerned. This is primarily to establish a good relationship with both child and family and also to ensure that each pupil is receiving any necessary medical or nursing care and returns to school free from infection and infestation.

SCHOOL REPORT OF THE PRINCIPAL DENTAL OFFICER

"The duty of the School Dental Service is to make available dental treatment for all children attending maintained schools or otherwise the responsibility of the Local Education Authority. The aim of the service is to ensure that, as far as possible, through dental health education and a high standard of dental care, children shall leave school free from dental disease and irregularity, with an understanding of the importance of good natural teeth, and zealous in looking after them.

The service should be designed for routine inspections in schools, routine and emergency treatment in clinics, and dental health education in both."

The above two paragraphs from the 1962/1963 Annual Report of the Chief Medical Officer of the Department of Education and Science, refer to a Draft Model Scheme for the School Dental Scheme, and it is interesting to see just how closely this scheme resembles the existing School Dental Service in Shropshire.

Until September, 1964, the professional staff consisted of 7 full-time and 3 part-time Dental Officers, a whole-time equivalent of $8\frac{1}{11}$ Dental Officers. We subsequently lost the services of two whole-time Officers, one to an authority offering a far higher salary, whilst the other married and left the County. We obviously had no control over the circumstances in the latter case but in the former we could perhaps have exerted some influence. No replacements were forthcoming for these officers, although the vacancies were regularly advertised in the British Dental Journal.

For the remainder of the year, therefore, there was an equivalent of approximately 6 whole-time Dental Officers—approximately half of the existing authorised establishment.

The loss or gain of an Officer invariably results in some upset in the smooth running of the service till rhythm is restored, but in spite of this loss of staff there was an increase of 2,788 in the number of pupils inspected, and of 1,535 in the number treated. The school population in Salop is 48,639 and the total number of children inspected was 17,013, which figure represents just over one-third of the school population. A great deal of effort has been made to fulfil one aspect of the scheme namely "inspection" even under the handicap of having such a depleted staff.

All static clinics except one, and the two mobile dental units, have been kept in use to cope with as much routine work as possible and to provide a service in case of emergencies. This has obviously involved Dental Officers in much travelling time to some detriment of more productive efforts in the surgeries. We have tried to continue the practice of top quality dentistry and to make the pattern of treatment as comprehensive as possible.

Mr. Broadbent, Consultant Orthodontist, who has provided us with one session per week of this specialised work for several years at our base clinic in Shrewsbury, has now increased his services to two sessions per week. The extra session is divided, according to demand, between four outside centres, e.g. Oswestry, Whitchurch, Market Drayton and Wellington. Ludlow is at present catered for by Mr. Scott, our other part-time Orthodontist who is employed for one session per week. Attendance of the Orthodontist at these centres outside the County town saves patients the tedious business of travelling into Shrewsbury. The demand for this type of treatment is increasing e.g. the number of new cases who commenced treatment in 1964 was 289 compared with 223 in 1963, and there is every indication that there will be a further increase in the amount of work as this new scheme gets under way. All these cases place an extra burden on Dental Officers as the patients concerned all require regular supervision in order to keep the caries rate under control, since otherwise the orthodontic treatment would be valueless.

There are a number of special residential schools in Shropshire whose pupils and their health problems are the responsibility of the County Health Department, and the inspection and treatment of these children is time consuming for the Dental Officer who may have little to show for actual time spent. The treatment of many of these handicapped children necessitates a specialised approach. Conservation (or "Fillings") in the case of such handicapped children may present special difficulties, or even be impossible without an anaesthetic. We have devised and are developing further a technique designed to carry out all necessary routine treatment under a general anaesthetic, whereby we hope to perfect a routine which will minimise loss of productive time. Invaluable assistance is being given in this work by Dr. J. Polland, Consultant Anaesthetist at the Royal Salop Infirmary, whom the County Council are fortunate to have as a 'volunteer' part-time Anaesthetist for their School Dental Service.

Dental Health Education, like General Education, requires continuous effort. Dental Officers are every day in their surgeries stressing the benefits of good dental health, and showing how this may be achieved. School inspections are invariably preceded or followed by talks of Dental Health, the Dental Officer explaining the reasons for a dental inspection and why the majority of the children require treatment. In this direction the children are top priority as the parents of the future, and we hope that what we teach now will become second nature to them later, and so be passed on to their children. Many evenings a year are spent in giving talks to parents, and judging by the response at the time, and the requests for more, this service is much appreciated.

Miss Smith, our Dental Hygienist, has alone given 102 talks to schools and other organisations during the course of the year, and has devoted much of her own time out of duty hours to this work.

Exhibitions and poster displays are useful when used occasionally to 'Show the Flag' as they give us an opportunity to inform the public what comprehensive efforts we are trying to make towards dental fitness. This was the theme of the exhibit we displayed at the West Midland Agricultural Show in 1964. This exhibit, photographs, display cut outs and information, were provided by the Dental Staff, Health Department Staff and the Health Education Officer, and involved considerable hours of work in preparation. The Display stands were the only items which had to be purchased, and these can be used for any future enterprise of this nature. It is in fact proposed to organise at least one of these exhibitions each year.

This method of education is, in my opinion, having a beneficial effect. My colleagues, both dental and medical, in the service, have observed an improvement in oral hygiene, especially in infant and junior schools. There appears to be a marked reduction in the amount of gross decay in these age groups although the number of decayed teeth discovered is about the same as in previous years. If we could maintain, or better still increase efforts in the field of dental health education, there might be less need for expensive fluoridation schemes. A combination of both could result in the virtual elimination of dental caries in the Under School Age, Infant, and Junior age groups. The use of a Dental Auxiliary on the staff has proved so successful in routine dental work and talks in schools that the Authority must try to provide in the near future more surgery space in all our clinics to accommodate more of these girls. The necessary equipment will be available next year, but the accommodation is inadequate.

Under the supervision of Mr. N. Rushworth, Dental Technician in charge, the dental laboratory continued to turn out first-class work. The setting up of this laboratory some years ago really has been a great help to the service ; costs have been reduced (there is no need to incur the expense of a commercial laboratory) and efficiency has been enhanced through closer liaison between Dental Surgeon and Technician. There has been a continual increase in work output, especially in orthodontic appliances from this section.

A summary of the work done during the year is given below :

Mobile Dental Units.—The figures below show that the Mobile Dental Units are being used effectively and are a great help.

Schools treated	27
Pupils treated	686
Total attendances	2,026
Number of treatment sessions	251
Number of gas sessions	14
Fillings	1,937
Extractions	796
Other operations	322

Work done during the year (these figures *include* those relating to the Mobile Dental Unit) :

Number of pupils inspected by the Council's Dental Officers :		
(*a*) At periodic inspections		10,355
(*b*) As Specials		6,658
TOTAL		17,013
Number found to require treatment		13,078
Number offered treatment		12,585
Number treated		8,627
Number of attendances made by pupils for treatment (excluding orthodontics)		24,550
Half-days devoted to :		
(*a*) School Inspections		105
(*b*) Treatment		3,480
TOTAL		3,585
Fillings : Permanent Teeth		15,349
Temporary Teeth		3,730
TOTAL		19,079
Number of teeth filled : Permanent Teeth		13,688
Temporary Teeth		3,475
TOTAL		17,163
Extractions : Permanent Teeth		2,719
Temporary Teeth		6,666
TOTAL		9,385
Administration of general anaesthetics		3,314
Half-days devoted to administration of general anaesthetics :		
Dentists	33	354
Medical Practitioners	321	
Number of pupils supplied with artificial teeth		117
Other Operations :		
(*a*) Crowns	10	4,666
(*b*) Inlays	5	
(*c*) Silver splints	7	
(*d*) Other treatment	4,644	

Orthodontics :	
Total attendances	3,126
Half-days devoted to orthodontic treatment	163
Cases commenced during 1964	289
Cases brought forward from 1963	467
Cases completed	176
Cases discontinued	50
Pupils treated by means of appliances	363
Removable appliances fitted	338
Fixed appliances fitted	96
Cases referred to and treated by Hospital Orthodontists	Nil

Under the provisions of Section 78 of the Education Act, 1944, all the pupils (approximately 80) of Condover Hall School for the Blind were dentally examined and treatment carried out as necessary."

C. D. CLARKE, *Principal Dental Officer.*

SPEECH THERAPY

A cheering start to the year was the news that Miss J. Bellis had obtained her Licentiate of the Guildhall School of Music qualifying her to teach the subjects of Speech and Drama. In July the Senior Speech Therapist returned from the University of Manchester after a year of study leading to a Diploma in Audiology. In September we gained the services of Miss C. M. Percival and Miss C. D. Wagg as full-time Speech Therapists.

The increase in the number of staff has now made possible the resumption of clinical work in many centres which had been temporarily out of operation, nevertheless there are still vacancies on the establishment for two full-time Therapists. In comparison with other Authorities, some of which have advertised in vain for staff for more than ten years, Salop County Council may be considered fairly fortunate. The answers to a recent questionnaire on Speech Therapy, returned by 58 counties, showed that with the exception of 7 counties all experienced difficulty in recruiting up to establishment. No clear position of the establishment for Speech Therapists can be discerned as they vary from 0.4 to 10 per 10,000 school population.

The provision of a Speech Therapy Service is known to be considered as beneficial by the teaching profession in this County and it is regrettable that the staffing situation, as it is at present, precludes more regular visiting to schools and discussion between Therapist and class teacher. There is a great deal of guidance that the teacher is able to give to the speech defective child and it may be that a means of helping solve mutual problems might be by the holding of area meetings of teachers and Speech Therapists.

In order to make the best use of a Therapist's time there does not seem much value in making regular appointments for children who will improve their speech quickly without help, or for those children who will hardly make any progress. This does not mean that patients of the latter type should be neglected; in actual fact they may require concentrated speech therapy, daily, over a long period. It is important for the Speech Therapist to recognise when a child is at a stage of development when he will best respond to treatment.

The parents are always given reasons for the frequency of attendance and for the type of treatment being used and are also given suggestions on how they themselves can best help their child. The child who improves his speech has, nearly always, achieved this because of understanding help from his parents and/or teachers as well as that given by the Speech Therapist. Parents must realise that the weekly, or fortnightly, visit to the Clinic is not sufficient in itself to work a cure, nor is it fair for the child to be left to work on his own, without help, between visits. Any improvement in defective speech and language demands the concerted efforts of child, parents, siblings, familiars, teachers and Therapist, not for half an hour a week, but in every speaking situation.

A child will speak when he is ready to speak—Illingworth has said that "no amount of practice can make a child sit, walk, talk or acquire other skills until his nervous system is ready for it." Some children miss out the early stages, of babbling and single words, and eventually start with sentences, but most children of two years are acquiring words and at the age of three are using them. The non-communicating child is nowadays receiving more attention from several disciplines and differential diagnosis has become an essential. An opportunity for much valuable work along these lines is possible with the resources becoming available at the Nursery Special School referred to on page 17.

Sheridan lists as the most obvious reasons why a child does not speak at the usual age :

Lack of opportunity to learn.
Impaired hearing.
General intellectual retardation.
Delayed maturation of the central nervous system.
Structural lesions of the brain due to malformation, biochemical abnormality, infection or injury.
Psychiatric disturbances.
Motor disorders affecting the muscles used in speech.
Structural abnormalities of the peripheral speech organs.

Individual children with defective speech caused by any of the above reasons are seen in Clinics held throughout the County, though groups of children in the specific categories are more likely to be found attending the Junior Training Centre, Nursery Special School or the schools for Educationally Subnormal children.

It has been shown that written and spoken language are predictable by statistical methods, that sounds and words are determined by other sounds and words that surround them. Everyone has been in a situation where it is possible, when listening to a speaker, to complete the sentence for him. At the beginning one is uncertain of what the other will say, this varies in degree according to the situation, but as the other person continues speaking the range of possibilities becomes less until a point is reached where the sentence can be completed for him. The vast majority of people who stammer would agree that nothing is more infuriating than having the well-intentioned person finish their sentences for them.

In most speech there is more information than is absolutely necessary to get a message correct. This is known as redundancy—and the English language is highly redundant. These extra pieces of information are used all the time, they limit the number of choices required by the listener; for instance, repetiton is redundancy and repetition helps to avoid mistakes. Any language must contain some redundancy if it is to be a reliable means of communication. Redundancy does not mean unwanted, useless or unimportant information; it refers to the more than minimal clues which one receives and there are the very essentials for the child learning speech and language.

The redundancy of written English has been estimated to be about 50%, half the words used in the expression of an idea being determined by the structure of the language, therefore knowledge of the language "system" is essential for communication by speech and writing. Learning a language is really a storing of statistical information about sounds and words, but one is unaware of possessing this knowledge, as it is stored at a brain level where it is paid no particular attention. The amazing fact is not that there are children with defective speech and language but that anyone at all manages to develop these normally.

Perhaps there is some truth in the words of John Morley—"Three things matter in speech : who says it, how he says it, and what he says—and, of the three, the last matters the least."

The following table gives particulars of the conditions which necessitated attendance of 391 children who were given speech therapy during 1964 :

Condition	Cases discharged during year	On Register 31st December
Stammer	34	39
Cleft Palate	4	3
Severe Dyslalia	8	35
Nasality + or —	2	3
Dyslalia	111	85
Voice Defect	—	1
Mongolism	3	4
Non Communicating	—	2
Partially Hearing	4	5
Educational Subnormality ..	2	8
Dysarthria	—	2
Mixed Defect	6	12
Dysphasia	—	2
Mental Defect	7	8
Language Defect	1	—
TOTAL ..	182	209

These totals include 6 children from 2 neighbouring Counties, the latter paying the Shropshire Education Authority for their treatment.

At the end of 1964 Speech Therapy Clinics were being held at the following Centres :

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning	Wellington C.W.C.	Hadley Sec. Modern School	No. 1 Belmont, Shrewsbury	Ludlow C.W.C.	Bridgnorth C.W.C.
	Petton Hall	Oswestry C.W.C.	Madeley C.W.C.	Nursery Special School	Nursery Special School
	No. 1 Belmont, Shrewsbury	Eye, Ear & Throat Hosp.		Eye, Ear & Throat Hosp.	Condover Hall
Afternoon	Wellington C.W.C.	Hadley Sec. Modern School	Newport C.W.C.	Ludlow C.W.C.	Haughton Hall
	Nursery Special School	Oswestry C.W.C.	No. 1 Belmont, Shrewsbury	Dawley C.W.C.	Market Drayton C.W.C.
	Junior Training Centre				Whitchurch C.W.C.

CASES TREATED

On Register 1st January	Children resuming Treatment	New Cases during year	Cases discharged during year	On Register 31st December
94	68	229	182	209

CASES DISCHARGED

Normal	Substantially Improved	Unlikely to benefit from further treatment		Left School or Ceased	Referred to Other Services	TOTAL
		Slightly Improved	Unimproved			
105	30	3	4	21	19	182

In a small number of cases, discharge is temporary and children can attend later for further treatment.

In addition :

72 children made single visits to Centres for advice.
27 visits were made to individual homes.
12 visits were made to schools to see children and discuss cases with teachers.

In all, 391 children having regular treatment in the County made a total of 2,421 attendances.

Nursery Special School.—This unit (referred to on page 17) gives an opportunity for the study of a few children with speech disorders and allows for a gradual diagnostic assessment to be made. There were originally 12 children attending but the full complement of 24 is gradually being built up. These are divided into two classes for teaching purposes—one containing those who are able to cope with more formal teaching, and those with more severe handicaps.

At present 15 of the children are receiving regular Speech Therapy and the conditions necessitating treatment may be classified as follows :

Cerebral Palsy	7
Delayed development due to mental retardation	2
Non-communicating :	
(*a*) Psychological	2
(*b*) Possibly neurological	1
Severe dyslalia (twins)	2
Physical abnormality	1

Of all the children at present attending the Nursery School only 2 are considered to have normal speech ; the speech problems vary in severity, ranging from slight mispronunciations to mutism with complete absence of verbal communication.

The facilities available enable the Speech Therapist to know and study the children in many situations, e.g. classrooms, meal-times, music and movement, swimming, social activities. This is invaluably beneficial in that it not only facilitates long-term assessment, so that the most can be done for the *individual* child, but also carries speech therapy treatment into every day life—a linkage which is sometimes difficult to achieve. Further, it gives maximum opportunity for consultation and planning with workers in other fields.

Finally, the Unit fosters an extremely happy atmosphere among the children, a factor which makes the work required from the staff more than worthwhile.

E. PAULETT, *Audiologist/Senior Speech Therapist.*

DEAFNESS

Detection of deafness.—The first essential, as with any other type of handicap, is early diagnosis, that is, at the earliest possible moment in the case of children born with defective hearing, or, in the case of older children, as soon as possible after any injury or illness which may affect the auditory system.

In Shropshire, the detection of deafness involves an audiology programme which has two main features, namely :

(i) the testing of selected babies at the age of nine months, and

(ii) the routine testing of all school children at the age of five and eight years.

Staff.—In order that the audiology programme may be carried out, a staff of specially trained Medical Officers, Health Visitors, Sweep Frequency Testers, and an Audiologist has been made available for this work, performed of course in conjunction with other duties.

At the beginning of 1964, a team of four Medical Officers, four Health Visitors and two Sweep Testers undertook this work, but during the year Mr. Paulett, the Senior Speech Therapist, who successfully completed a twelve month course at Manchester University, leading to the Diploma in Audiology, joined the team and is now responsible, as Audiologist/Senior Speech Therapist, for the task of co-ordinating the audiological services in the County. In September, a further five Health Visitors were trained locally by the Audiologist and a fifth Medical Officer attended a course in Audiology at Manchester University. During the year, however, we lost the services of two of the specially trained Health Visitors, one having retired and the other having been transferred to other duties.

At the end of the year, the audiology staff was as follows :

1 Audiologist
5 Medical Officers
7 Health Visitors
2 Clerk/Sweep Frequency Testers

Infant Hearing Tests.—These tests are carried out on infants at the age of nine months who have been placed on the "at risk" register. Children considered to be at risk of handicapping conditions are those who are known to have a significant family history or who have been subject to certain pre-natal, perinatal and post-natal influences. In addition to the babies on the "at risk" register, young babies are also referred for hearing tests by Paediatricians, Otologists, Family Doctors, Parents and Health Visitors.

The testing is undertaken by the specially trained Health Visitors, either working in pairs or with the Audiologist, usually at the local Child Welfare Centre.

During 1964, a total of 931 babies (out of 5,796 born) was notified and placed on the "at risk" register, and during the year 772 children who had attained the age of nine months had their hearing tested. The results are summarised in the following table :

INFANT HEARING TESTS PERFORMED

	Tested	Passed	Failed or did not co-operate	
			For Retest	For Medical Audiology Clinic
New Cases ..	691	597	84	10
Review Cases	81	50	21	10
TOTAL ..	772	647	105	20*

*Of these 20 cases :
7 are to have further hearing tests.
5 were discharged with normal hearing.
3 are awaiting appointments to attend the Medical Audiology Clinic.
2 subsequently attended the Hearing Assessment Clinic and the issue of Hearing Aids was recommended.
2 had operative treatment by the Ear, Nose and Throat Surgeon.
1 is awaiting an appointment to attend the Hearing Assessment Clinic.

Hearing Tests of School Children.—The routine testing of the hearing of all school children at the age of five and eight years is carried out by two members of the clerical staff, trained in the use of portable audiometers. The method used is called the "sweep frequency test," and this test indicates a child's capacity to hear a note at a sound pressure level of 25 Decibels, the note varying in pitch as a "sweep" at octave intervals from 250 to 8,000 cycles per second. (A decibel is a scientific term used as a unit in the measurement of sound intensity). Any child who fails to pass this test is referred to an Audiology Clinic, which is attended by a Medical Officer and a specially trained Health Visitor, where more detailed tests are carried out.

Unfortunately, due to the pressure of clerical work in the School Health Service section, it was not possible for the two clerk/sweep frequency testers to visit all of the schools in 1964. Only 102 primary schools were visited out of a total of 238 ; it is hoped, however, to reduce the arrears of this work during 1965, when it is anticipated that the staffing position will improve.

The following table gives the results of the sweep frequency tests carried out in 1964, and includes children outside the 5 and 8 year old age groups who were specially referred for a hearing test by the Heads of schools on account of suspected deafness, backwardness or speech disorders :

SWEEP FREQUENCY TESTS PERFORMED

Category	Tested	Normal	Hearing Suspect
Primary School Children	5,266	4,461	805
Suspected Deafness ..	184	119	65
Backwardness	111	78	33
Speech Disorders	31	25	6
TOTAL ..	5,592	4,683	909

Medical Audiology Clinics.—These Clinics, which are held regularly at the main Child Welfare Centres throughout the County, are attended by one Medical Officer or the Audiologist and one trained Health Visitor.

The children seen at these Clinics include not only those who have failed the sweep test at school, but also children referred direct by School Medical Officers, Speech Therapists, the Teacher of the Deaf, Heads of Schools, Medical Practitioners and Hospital Specialists.

During 1964, a total of 188 clinics was held and 1,885 children received detailed hearing tests, with the results indicated below :

RESULTS OF TESTS AT MEDICAL AUDIOLOGY CLINICS

Referred by	Cases	Number Tested Age Groups			Discharged	Further Investigation	Hearing Defective					
							One Ear				Both Ears	
							Severe		Moderate			
		Under 5	Primary	Secondary			L.	R.	L.	R.	Severe	Moderate
Aural Surgeon ..	New	2	11	2	4	4	—	1	2	—	—	4
	Review	—	7	3	3	3	—	—	1	1	1	1
Deaf Teacher ..	New	—	28	2	19	4	—	1	1	2	—	3
	Review	—	8	1	4	2	—	—	—	1	—	2
Educational Psychologist	New	—	—	—	—	—	—	—	—	—	—	—
	Review	—	—	—	—	—	—	—	—	—	—	—
Family Doctor ..	New	—	3	—	1	—	—	—	—	—	—	2
	Review	—	1	—	—	—	—	—	—	—	—	1
Head Teacher ..	New	—	18	8	12	9	—	—	1	—	—	4
	Review	—	4	1	4	—	—	—	1	—	—	—
Health Visitor/School Nurse	New	6	21	2	10	11	—	—	—	—	—	8
	Review	6	10	—	5	7	—	—	—	—	—	4
Infant Assessment Clinic	New	6	5	—	1	8	—	—	—	1	—	1
	Review	2	5	—	1	2	—	—	1	1	—	2
School Medical Officer	New	8	130	57	100	54	—	3	2	11	5	20
	Review	3	73	26	28	35	2	4	6	6	3	18
Speech Therapist ..	New	2	16	2	12	4	—	—	1	—	—	3
	Review	—	15	6	8	6	—	—	—	1	1	5
Sweep Test	New	1	970	13	591	225	3	1	36	24	8	96
	Review	—	285	20	110	96	1	2	19	17	3	57
2 H.P. Case (E.S.N.)	New	—	16	20	27	6	—	—	—	—	—	3
	Review	—	4	5	1	3	—	—	1	2	—	2
Parent	New	8	25	1	14	10	—	—	1	2	1	6
	Review	1	6	3	1	2	—	—	1	—	—	6
Paediatrician	New	3	2	—	3	2	—	—	—	—	—	—
	Review	1	1	—	—	1	—	—	—	—	—	1
TOTALS ..		49	1,664	172	959	494*	6	12	74	69	22	249
		1,885			1,885							

*This figure includes cases where the Medical Officer was unable to diagnose definitely any permanent hearing loss. The children concerned may, at the time of examination have been suffering from such conditions as colds, catarrh, etc., or have had wax in the ears. In order not to inundate the Otologists with unnecessary referrals these children were called for further investigation before a final decision or recommendation was made.

Following attendance at the above Clinics, recommendations and referrals were made as follows :

61 children were recommended to sit in an advantageous position in class ;
111 children were notified to the School and to the Peripatetic Teacher of the Deaf to visit and advise in school ;
10 children were referred to their Family Doctors for treatment ;
60 children were referred to Ear, Nose and Throat Specialists ; and
81 children were referred to the Hearing Assessment Clinic for a final decision on operative treatment, special educational placement or the provision of a hearing aid.

Hearing Assessment Clinics.—At frequent intervals, special hearing assessment clinics, at which child and parents were seen at the same time, were held in 1964 at the Unit for Partially Hearing Children at Coleham Junior School, Shrewsbury, and latterly at the Nursery Special School, Woodcote Way, Shrewsbury. Children were referred to these clinics from the Medical Audiology Clinics or the Infant Hearing Testing Clinics. These clinics were attended by Mr. E. N. Owen, Aural Surgeon, Eye, Ear and Throat Hospital, Shrewsbury, Dr. N. V. Crowley, Senior Medical Officer, Dr. A. C. Mackenzie, Mr. E. Paulett, Audiologist, an Educational Psychologist, the Teacher of the Deaf, the Deaf Aid Technician, and one of the specially trained Health Visitors.

Children who attend these clinics are all suffering from defective hearing and before a decision is reached regarding the provision of special educational treatment, hearing aids, or operative treatment, each case is thoroughly assessed by the Specialists in attendance and the decision arrived at in each case is, therefore, directed towards the very best interests of the child.

During 1964, a total of 95 children attended 19 of these Hearing Assessment sessions. The provision of a "Medresco" (N.H.S.) hearing aid was recommended in 34 cases. Of the remainder, 25 were recommended for operative treatment, 2 for admission to the Partially Hearing Unit at Coleham School, 1 was recommended for admission to the Nursery Special School, 2 were discharged, and 31 were recommended to be reviewed again.

Children with Hearing Aids.—When a child is issued with a hearing aid through the Eye, Ear and Throat Hospital, Shrewsbury, arrangements are made for the School Health Department to be notified accordingly by the Hospital Deaf Aid Technician. If the child is of school age, the Teacher of the Deaf then follows up the child in school to ensure that he is using his aid correctly and is getting the maximum benefit from it. If the child is under school age, the Audiologist visits the home and undertakes regular parent/child training with the aid of a speech trainer.

During 1964, some 43 hearing aids were issued to Shropshire children.

Miss Green, Teacher of the Deaf, gives the following account of her work :

"Staffing during the first nine months of 1964 was again a problem. However, in September, Miss G. M. Potts who had been teaching deaf children in Jamaica for eight years was appointed as Assistant Teacher and has since been doing full time peripatetic work in the County.

The work of teaching partially hearing children in the County has continued on similar lines to that of 1963, but during 1964 three significant developments occurred as follows :

(i) Consideration was given to the provision of a second class for partially hearing children at Coleham School.

(ii) In October the Shropshire Branch of the National Deaf Children's Society was formed.

(iii) Home visits were made to children on vacation from residential schools for the deaf and partially hearing.

Proposed Second Class at Coleham School.—The possibility of a second class being provided for partially hearing children is most heartening to those concerned with the future of all such children who are at present trying to manage in the ordinary school. There is no spare room at Coleham Primary School and if a second class were to be placed there it would probably involve erecting a prefabricated classroom. Nevertheless it is advisable that the two classes should be together in Shrewsbury—and preferably at Coleham School—for the following reasons :

(i) Shrewsbury is in a central and accessible position in Shropshire.

(ii) Coleham School is in a relatively quiet situation.

(iii) The other children and staff at Coleham School have learned to accept pupils from the partially hearing Unit as "normal children with a hearing loss."

(iv) Two classes would eliminate the wide age range of children now being taught in the one class, equipment could be shared and teaching methods would be the same in both classes, with liaison between the teachers. The eventual transition from infant to junior grade would be facilitated by children moving into the Junior Class for some lessons.

(v) At present the temporary absence of one member of staff means that either the peripatetic teacher must be withdrawn from her work, or an unqualified Teacher of the Deaf must be engaged to take her place. If two classes existed side by side in the same unit, a Teacher of the Deaf could take those lessons which can be given only by a trained teacher.

(vi) If the classes were housed apart it would be more difficult to organise excursions, casual holidays and parties, especially with the additional expense of the necessary transport.

Formation of Branch of National Deaf Children's Society.—In September a meeting was called in order to form a Branch of the National Deaf Children's Society in Shropshire, membership being open to all persons interested in the deaf and partially hearing child. The three main aims of the Branch are :

To secure, promote and ensure for all deaf and partially hearing children in Shropshire maximum benefits and happiness from—

(i) Home environment

(ii) Educational facilities

(iii) The co-operation of the general public to the end that these children may lead a full, normal, happy and secure life in a hearing world.

Two immediate aims of the Branch are as follows—

(i) To equip the Partially Hearing Unit at Coleham County Primary School with a Group Hearing Aid ; and

(ii) to secure more Speech Training Units for loan to the parents of hearing impaired children for longer periods of time.

Home Visits to Children in Out-County Residential Schools.—During the Christmas vacation, visits were made to children who were home on holiday from out-County Residential Schools for the Deaf, and it was interesting to find that of the 19 children visited, 14 did not use their hearing aids when at home. Of the remaining 5 who were using their hearing aids, 3 had only moderate losses of hearing whilst 2 had previously attended the Partially Hearing Class at Coleham.

Of the 19 children concerned, 7 had adequate speech for communication (2 of these had previously attended the Partially Hearing Class whilst 5 had "naturally acquired" speech), 2 had a little speech and were able to use this as a means of communication, whilst the remaining 10 children had little or no speech and relied upon signs and gestures and communicated inadequately by these methods.

The majority of the children visited did not venture out of their homes for fear that they should meet people from the hearing world. Most of the parents know little or nothing about hearing aids or the amount of their child's hearing, even though they wished to know these facts, and some of them also expressed concern about their child's future.

The figures relating to this County represent only a small percentage of all deaf children in the country as a whole, but it seems tragic that children such as these, many of whom will be leaving school shortly, are without means of communication. This raises again the old question "Should finger spelling be taught in schools for the deaf ?" Although this is often discussed by those interested in the deaf child, surely a more important question is "Why does a deaf child admitted to school at three years of age, and who has no additional handicap, not learn to speak ?" I am quite convinced that a child whose hearing loss has been detected in very early life, and whose training in speech and language begins immediately, provided that he has no other handicap, can be taught to speak sufficiently well to communicate in the hearing world.

However, from the figures quoted above it would appear, for reasons unknown to me, that this does not always happen and therefore one must be prepared to qualify these views by stating that if a child is not communicating reasonably freely by means of speech at the age of ten years then he should be taught to finger spell. There is the danger here that teachers may take the easy way and discontinue attempting to teach the deaf child to speak. Finger spelling alone is not enough, for how many hearing people can finger spell ? Using this method necessarily segregates the deaf from the hearing thus limiting their social contacts, but it is a means of communication which should, if necessary, be the right of every deaf child.

Special Class at Coleham Primary School.—This class has as pupils children from all over Shropshire in the age range from four to twelve years all with variable degrees of both hearing loss and innate ability.

Children in the Class 1964

January	10 full-time pupils on the register
February	1 child transferred to hearing school
March	2 children admitted
September ..	2 children transferred to hearing schools
	3 children admitted

Conditions in the Partially Hearing Class are far from ideal when one considers the varieties of ages, hearing losses and abilities of the children, but despite all this I am glad to report a successful year. Not only have the children made good educational progress, but many have made excellent improvement in communication through speech and thus are socially better adjusted; some still have far to go, but they too are making headway.

The 3 children admitted to the class from hearing schools came because they could not cope there, even with a hearing aid; when admitted their attainments were virtually nil. Only one child could read and her reading age was two years behind her chronological age. The other two could neither recognise their own names nor count in sequence up to ten. In December, 1964, two of these children had been in the special class for nine months and by this time the child of average

ability was making progress expected of a child of her age. Another, of low average ability, had added fifteen months to his reading age and had made much progress in number.The third child after only one term had also begun to read and was gaining ground rapidly in number.

More important than the educational progress of these children was the change that came about in their personality and general attitude to work. A disturbing fact about children transferred from the hearing school after probably some years of failure is that with the exception of a few they all tend to withdraw themselves from social situations and develop some behaviour problem. I only wish more educationists and parents were as concerned about this as my colleagues and I.

> *"The hearing impaired child is in the first place a child and only then a hearing impaired child. He should be educated like a normal child, only the conditions should be modified so that it can be done."

At Coleham our aim for children is normality. It is rarely possible for the hard of hearing child to become normal in every respect because of his severe handicap, but many of the children in the class do appear normal and are accepted as such by their hearing contemporaries. Some children, despite speech difficulties, have made friends with hearing children in the school.

School Visits.—Owing to staff shortage these were only made on a part-time basis up to September. The main aim of this service is that of assisting the integration of the partially hearing child within the hearing school.The Peripatetic Teacher's function is to review the attainments of such a child and to ensure that he is progressing to his fullest capacity both educationally and socially, but with a case list of 653 as we have in Shropshire it is not always possible to give the child as much help as he needs. Many children need regular daily help in as good acoustic conditions as those afforded in a Partially Hearing Unit.

It is not possible for a Peripatetic Teacher of the Deaf to undertake remedial teaching in all cases where it is needed, and only incidental remedial teaching can be given in conjunction with auditory training.

Many children, despite moderate hearing loss, make good progress at the primary school stage, but real difficulty is experienced once they enter a secondary school. From informal, individual work, they are suddenly thrust into a formal school atmosphere. Oral lessons are often unaccompanied by visual aids and often quick tests are given on the contents of a lesson during which the teacher probably walks up and down the room or stands at the back of the class. Many children told me of their difficulties when listening to dictation. for it is understandable that to write what the teacher dictates when one needs to be watching as well as listening, becomes an impossible task.

Although the Head Teacher and staff of a Secondary School may be sympathetic towards the problems of the partially hearing child, the constant movement of the specialist teacher about the classroom often results in such a child being overlooked. A visit from the Peripatetic Teacher as soon as possible after the child's transfer to Secondary School is therefore invaluable. Unfortunately despite all efforts the child's work suffers, begins to deteriorate and consequently, in many cases, his whole personality becomes affected. Many adolescents who had previously accepted their aids are reluctant to wear them in this new environment because they feel conspicuous. A Senior Partially Hearing Unit would be a great asset not only for these children, but also for those progressing from the existing Unit at Coleham.

*J. Tolk, Ph.Drs. and A. L. Vandepoel, Orthopedagogue.

Home Visits.—Training of pre-school deaf and partially hearing children, and their parents, was given by the Teacher of the Deaf until July, 1964, after which this work was continued by Mr. E. Paulett, Audiologist. Home visits are still made by Teachers of the Deaf to parents of children of school age in order to give them guidance on how best they can help their child. Also proving to be of great help are the lectures and interchange of ideas between parents at meetings of the Shropshire Branch of the National Deaf Children's Society.

STATISTICAL SUMMARY (1963 figures in brackets)

Visits made in 1964 :	School visits ..	769	(326)
	Home visits ..	47	(66)
	TOTAL ..	816	(392)
Children Visited in 1964:	At School ..	624	(266)
	At Home ..	27	(13)
	TOTAL ..	651	(279)

No. of school children on visiting list during 1964 ..	658
No. of school children who moved from the County during 1964	5
No. of children on visiting list at 31st December, 1964	653
New referrals in 1964	324
No. of hearing aids issued in 1964	43
No. of schools visited in 1964	160

CHILD GUIDANCE SERVICE

Mr. J. L. Green, County Educational Psychologist, gives the following account of the work carried out by the Child Guidance Service during 1964 :

"During the year 1964, the Child Guidance Service suffered quite a severe depletion of staff. Dr. Barbara Evans left at the end of January to return to America and since then we have not been able to replace her. There is hope that there will be available the services of a Consultant Psychiatrist by the end of 1965. Miss K. Hunt, Psychiatric Social Worker, left at the end of July for London to train there as a Psychotherapist, and Mr. R. Baker, the second Psychiatric Social Worker, departed during September to take up a post in Western Australia. The only addition to the staff has been an extra part-time Social Worker, Mrs. B. Boycott, who lives in Ludlow. She has been able to devote a day a week to the Ludlow area and has made an impact on the homes she has regularly visited. She has been able to spend another day a week in Shrewsbury and has paid occasional visits to outlying Clinics.

A few children have been referred to the Out-patient Department of Shelton Hospital for psychiatric interview, but, for the most part, the majority of the work has been carried on within the County Service. The Psychologists have devoted a great deal of their time to helping disturbed and maladjusted children.

Regular weekly Clinics are held in Shrewsbury and Wellington and a monthly Clinic in Ludlow. Visits have been paid to outlying Clinics at Oswestry and Market Drayton from time to time.

It was realised that the waiting list might grow to alarming proportions if allowed to do so, and it has been the policy of the workers in the Service to try to keep the waiting list down as far as possible by at least seeing the parents and children once or twice. In many cases, stress and anxiety are alleviated by the very fact that the parents have been able to come to the Clinic and and talk to one of the staff. It has, of course, not been possible to carry out quite so much prolonged psychotherapy.

During 1964, a total of 56 children suffering from enuresis and soiling etc. were referred to the Child Guidance Clinic and of this number 42 were considered to be suitable for treatment with the use of the Enurex apparatus. Treatment was successful in the cases of 30 of these children, partially successful in 6 others and unsuccessful in the remaining 6 cases.

It is hoped that Mr. A. I. Rabinowitz, Principal of the New Nursery Special School, will be able to give a little of his time to the School Psychological Service so that the work in this field will not unduly suffer from the depletion of staff from the Child Guidance Clinic."

Summary of work done during 1964 (figures for 1963 in brackets) :

Total number of new referrals	263	(245)
Total number of new cases seen	119	(210)
Unco-operative	12	(13)
Awaiting appointments	32	(22)
Old cases still requiring help	48	(41)

Sources of referral :

Head Teachers	28%	(27%)
Private Doctors	15%	(20%)
County Medical Officer of Health	32%	(30%)
Parents	12%	(8%)
Probation Officers	5%	(3%)
Miscellaneous, e.g. Children's Department, Psychiatric Hospitals, Education Welfare Officers, Speech Therapists, N.S.P.C.C., Health Visitors	8%	(12%)

Reasons for referral :

Behaviour difficulties such as aggressive behaviour, severe temper tantrums, truancy, pilfering	35%	(36%)
Nervour conditions such as night terrors, anxiety conditions, stammering and timidity	25%	(27%)
Physical disorders, e.g., day or night enuresis, soiling, failure to eat or sleep normally	24%	(22%)
Failure in school. Difficulties either in specific subjects, general behaviour or general attitude to work	13%	(13%)
Miscellaneous reasons: vocational guidance, advice re adoptions, reports to Magistrates	3%	(2%)
Number of cases seen by Psychiatrist (up to end of January 1964)	7	(83)
Number recommended for admission to Schools for Maladjusted Children	20	(15)

B.C.G. VACCINATION OF SCHOOL CHILDREN

B.C.G. vaccination against Tuberculosis is available, with parental consent, to :

(*a*) school children in the year preceding their fourteenth birthday ;

(*b*) children of 14 years and upwards who are still at school and students at universities, teacher training colleges, technical colleges and other establishments for further education; and

(*c*) whole school classes, which may include a few children under 13 years, for convenience.

The following are particulars of schools visited for B.C.G. vaccination purposes during 1964, with comparative figures for 1963 :

	Maintained and Grant-aided Schools		Independent Schools		Total	
	1964	1963	1964	1963	1964	1963
Schools visited	54	66	23	24	77	90
Children tested	3,089	3,445	454	474	3,543	3,919
Reactors—positive	222	326	58	54	280	380
—negative	2,751	2,981	394	415	3,145	3,396
Not read	116	138	2	5	118	143
Children vaccinated	2,714	2,918	385	410	3,099	3,328
Negative reactors not vaccinated	37	73	9	5	46	68

The acceptance rate for B.C.G. vaccination for 1964 was 93 per cent.

Special surveys were made at three schools where children had been in contact with known cases of Tuberculosis :

	Tested	*Positive Reactors*	*Negative Reactors*	*Not Read*	*Negative Reactors Vaccinated*
Children (all ages)	530	152	357	21	77

The majority of the negative reactors were pupils under 13 years of age and therefore too young for vaccination ; they will be retested and vaccinated where necessary when they reach 13 years of age.

Mass Radiography.—Appointments for chest x-ray by Mass Radiography are offered to all positive reactors and also to their home contacts. In addition, since February 1964, arrangements have been made for those pupils who have had large Mantoux positive reactions (induration 20 mms. and above) to have follow-up x-rays four months and sixteen months after their initial chest x-ray.

The table below summarises the results of all cases investigated by the Stoke-on-Trent and Wolverhampton Mass Radiography Units.

	Pupils	*Home Contacts*	*Staff*
Cases investigated	1,599	371	256
Recalled for large film examination ..	22	12	1
Cases of tuberculosis discovered	3	1	—

(Included in the above figures are 1,171 children and 224 staff, from the schools at which special surveys were made. 5 children and 1 member of staff were recalled for large film examination. One of these children was found to have a benign tumour of the chest and was successfully operated on for this condition. The member of staff was already known to the Chest Physician and had been under his supervision for several years).

DIPHTHERIA IMMUNISATION

Routine Medical Examination Sessions in school give the School Medical Officers opportunity to check on the children's state of protection against Diphtheria, to urge the importance of immunisation and to get parental consent to its promotion and maintenance. School Nurses, Health Visitors and District Nurses, who in the course of their duties discover school children who have missed immunisation, also endeavour to obtain the necessary parental "consents." Propaganda methods, including the display of posters, are also used from time to time to remind the public of the importance of immunisation.

During 1964, the total number of children *of school age* who were primarily immunised was 240; of this number 139 were treated by School Medical Officers and 101 by general medical practitioners.

Children immunised against Diphtheria in infancy should have a reinforcing injection after an interval of three or four years and School Medical Officers at routine medical inspections advise this in appropriate cases.

Unfortunately, due to the demand for poliomyelitis vaccination between 1957 and 1962 and to the demand for smallpox vaccination in 1962, there was a decline in the numbers of children receiving booster doses against diphtheria. In order to rectify this, a new procedure was started during the Autumn Term, 1963. Under this scheme consent forms are now issued to parents of 5 and 11 year olds at the time when preliminary arrangements are being made for the school medical inspection. In addition to protection against diphtheria, primary immunisation or boosters against tetanus and poliomyelitis are offered to 5 year olds. Children aged 11 years are offered booster or primary immunisation against diphtheria and tetanus, and re-vaccination against smallpox : parents have the choice of their children being given the necessary doses either at school or by their family doctors.

Of 3,814 school children given "booster" doses in 1964, some 2,928 were dealt with by the School Medical Officers and 886 by general medical practitioners.

The effects of the immunisation campaign are demonstrated by the following table showing the incidence of, and deaths from, Diphtheria among persons of all ages in the County during the past twenty years.

		1945—49	1950—54	1955—59	1960—64
Notifications	Total	40	3	—	1
	Annual average	8	0.6	—	0.2
Deaths	Total	5	1*	—	—
	Annual average	1	0.2	—	—

*Death of elderly woman, assigned by Registrar-General; C. diphtheriae not found.

VACCINATION AGAINST SMALLPOX

During the year, 127 children between the ages of 5 and 14 years were vaccinated against Smallpox. Of this number, 77 vaccinations were performed by School Medical Officers and 50 by general medical practitioners.

In addition, 217 children were re-vaccinated, 140 by School Medical Officers and 77 by general practitioners.

VACCINATION AGAINST POLIOMYELITIS

The following are details of children who completed a full primary course of either Salk or Sabin (Oral) vaccine during 1964. It will be noted that separate figures are given for those in the 15—18 age group, which includes pupils at grammar schools, technical colleges, etc.

Vaccinated by	5—14 years	15—18 years	Total
County Council Medical Officers	472	16	488
General Practitioners	174	49	223
TOTAL ..	646	65	711

Fourth doses were again made available to children on entering school (normally at the age of 5 years) and also to children between 5 and 12 years of age. In 1961, the Minister of Health had been advised to take this action by the Joint Committee on Poliomyelitis Vaccination, on the grounds that while three doses of vaccine give a high degree of protection, children in school are considered to be at markedly greater risk.

A total of 2,201 school children received fourth doses during the year and, of these, 1,735 received their doses from County Council Medical Officers while the remaining 466 were dealt with by General Practitioners.

IMMUNISATION AGAINST TETANUS

Of the 2,785 children who received primary immunisation against tetanus, 2,237 were dealt with by School Medical Officers and the remaining 548 by general practitioners. Of a further 1,908 children who received booster doses of tetanus antigen mainly in conjunction with diphtheria boosters by means of combined vaccines, 975 were immunised by School Medical Officers and 933 by Practitioners.

HEALTH EDUCATION

The term 'Health Education' covers a wide field, some sections being perhaps more specialised than others. Schools promote physical and mental health by teaching games and physical education, and academic and practical subjects in classroom and workshop, and by many extra-curricular activities. Within this educational framework there is a place for the medical and dental educational services which the Health Department try to fill as opportunity arises.

During the year, in the course of their normal duties, School Medical Officers, Dental Officers and Health Visitors visit schools in the County and give talks on health subjects. Junior schools are not visited as a routine but only at the request of the Head. Our efforts in this field seem appreciated by the teachers, and we are having more and more requests for talks to be given in schools. When requested, the Department's Officers are prepared to tackle special needs or current problems in the course of these talks. Visual aids, films, filmstrips, slides and flannelgraphs, together with leaflets and posters or display panels are provided. This applies to all schools, whether or not they are equipped with projection and "blacking out" facilities. In addition to normal routine talks by Medical Officers, Dental Officers and Health Visitors, there has been a number of special requests for illustrated talks supported by films, strips and slides.

The scope of the talks has extended from general health, posture, nutrition, grooming, care of person, teeth, feet, food hygiene, to more specialist subjects such as parentcraft, smoking, venereal disease, safety in the home.

There seems to be a growing demand for some kind of guidance for adolescents in regard to personal relationships between the sexes and what have been termed "the complications of adult life." This is stressed by the Newsome Report which advocates an education which in its final period offers an initiation into the adult world of work and leisure.

Between September 1964 and May 1965 the Health Education section of the Salop County Health Department has offered to Secondary Schools a course for young people on the problems of adolescence and emergence into the complexities of modern life.

Where Heads of Secondary Schools have requested sex education programmes, the courses are arranged by Mrs. Jean Owen who is a professional teacher enlisted on to the staff of the County Health Department expressly for this purpose about the middle of the year 1964, and who contributes the following report on her activities from the beginning of the Autumn term until the finalising of this Report in May 1965:

"The thirty-seven courses already completed in twenty-eight schools have covered all age and ability groups from the third year remedial stream pupils of the Secondary Modern School to the Sixth Form Grammar School boy and girls with their places already secured at the University.

The course is, therefore, adapted to the requirements of each individual Head of school, and his group's needs, and is essentially seen as an adjunct to each school's programme.

Mrs. Owen is aided by Mr. H. Harris who has charge of any visual aids which may be required for the programme and can also call upon a Medical Officer for one of the three meetings, if requested.

The first meeting is introduced by the showing of a modern film "Learning to Live" produced by the London Foundation for Marriage Education. This is a most useful and sensitive film, greatly appreciated by both boys and girls, which gives not only the biological facts of reproduction but also touches upon aspects of personal relationships, responsibility and questions of morality.

Questions submitted by the pupils at this first meeting form the basis for the succeeding meetings which are best conducted in smaller groups as free discussion is a most valuable part of this course. In fact, one of the conclusions which one formulates as the scheme progresses, is that these young people find discussion in their own age group, under an outside chairman, a most helpful measure—their individual problems and those of their friends when brought out and discussed seem to help them to get life's complexities into focus.

The pressures of the adult world, relentlessly applied through the mass media, bring to these young people the necessity of resolving their personal patterns of behaviour at an earlier age than, perhaps, ever before.

One finds that these boys and girls have few inhibitions in discussing problems of sexual behaviour, and modern morality, provided that the adult in charge is prepared to meet them with an equally straightforward approach.

In presenting this course to the Secondary Schools of Shropshire, we hope that we are able to help the teachers to open a window on this adult world and its problems, to help the boys and girls to solve some of their own and to achieve the emotional maturity which we all need for a happy life, before and after we leave school."

Smoking and Health.—Research and all the available statistical evidence indicates that there is a definite correlation between the smoking of cigarettes and the incidence of lung cancer, and on grounds of general health we do all that is possible by personal example and by the giving of information to discourage the formation of the smoking habit in youth and to curtail it in the addicted among the older generation.

Some Heads of Schools have felt that talks devoted entirely to smoking were undersirable because they tended to give undue emphasis to the practice and might well stimulate interest and experiment among those in whom the reverse reaction was intended but School Medical Officers are nevertheless expected to take every opportunity of pointing out to children the ill-effects of indulging in habits which are calculated to undermine good health.

In this County we have supported the Ministry of Health's anti-smoking campaign :

(*a*) by a programme of talks and the showing of films and slides in schools, available on request ;

(*b*) by displaying posters in clinics, council premises and elsewhere by distributing leaflets ;

(*c*) by offering talks to organised groups.

PHYSICAL EDUCATION

The following report has been provided by Mr. J. W. P. Beswick, Physical Education Adviser:

Schools' Field Centre.—The Secondary Schools' Field Centre at Arthog was open from early April to the end of September, 1964. A higher percentage of pupils attended the centre for educational purposes as worthwhile programmes of field work and outdoor pursuits were undertaken by the majority. Increased use was made of the centre by Grammar Schools. Good use was also made by Petton and Trench Hall Schools. The pupils from these special schools benefitted from the different environment and the new activities they were able to enjoy at Arthog. During the Summer holidays the centre was used by the Children's Department. Children and adolescents of all ages attended for one or two weeks and enjoyed a holiday by the sea.

All the children attending the Summer Camp at Arthog are examined before admission—initially by the local School Nurse and immediately prior to departure to camp by a School Medical Officer—and must be certified free from infection and verminous infestation before being allowed to proceed.

Arrangements are made with a local medical practitioner to provide medical services at the camp when needed.

Swimming.—In addition to the baths previously used, three new school baths opened at Albrighton, Shifnal and Dawley and more baths are planned for the next financial year. The Local Education Authority's awards were gained in ever increasing numbers. The newly introduced Survival Awards were also obtained, particularly in the Ludlow bath. Life Saving awards, under the new regulations, were successfully gained throughout the county. As well as the "Elite" class for competitive swimmers in the Shrewsbury bath, a second was started in the Wellington bath.

Duke of Edinburgh's Award.—More schools have now joined the scheme and this plus the fact that successful Bronze candidates pass on to take Silver and then Gold means that each year the overall numbers increase. The total number involved at the moment is over 600. The first girl to achieve the Gold award went to Buckingham Palace for the presentation in addition to the boys.

Shropshire Schools' Sports and Athletics Association.—Table Tennis has now been added to the 15 sports already covered. The first County Table Tennis Tournament was held at Lilleshall Hall on the same afternoon as the County Badminton Tournament.

Physical Education.—This subject improves as more schools acquire halls making a strip down and bare foot work possible.

SCHOOL CANTEENS

Medical Examination of Staff.—In order to ensure as far as possible that those engaged in the School Meals Service are not suffering from, or carriers of, infectious diseases liable to be transmitted by contamination of the food served in the canteens, the medical exaimination of canteen staffs is carried out out at least once a year, and new entrants to the service are examined as soon as possible after appointment and also given chest X-ray examinations. Ideally, they should be examined before commencing employment, but often the worker's services are urgently required and prior examination is not considered possible.

These medical examinations are directed towards establishing the cleanliness of the person, clothing and hands of those employed in the preparation or handling of food; and the absence of infectious conditions such as septic skin lesions, discharging ears and chronic catarrh and other conditions such as eczema or other forms of dermatitis.

If on initial examination an employee is found to have a history or shows symptoms of intestinal disorder, arrangements are made for specimens of faeces, and if necessary urine, to be submitted to the Public Health Laboratory, Shrewsbury, for investigation. During 1964, one specimen of faeces was obtained for bacteriological examination; this proved to be negative.

The following particulars give some indication of this work during the year :

KITCHENS AND SCHOOL CANTEENS

Premises		Personnel Employed				
		Supervisors	Cooks	Helpers	Others	Total
Central Kitchens ..	12	12	12	107	14	145
Self-contained Canteens	136	—	140	580	221	941
Canteens for dining only	158	—	—	319	210	529
TOTAL ..	306	12	152	1,006	445	1,615

During 1964 a total of 1,321 examinations of canteen personnel (272 initial and 1,049 re-examinations) was carried out.

In thirteen cases it was necessary to arrange for special chest X-ray examinations and the results in all these cases were satisfactory. X-ray examinations are made when the Mass Radiography Unit is in the area, or can be arranged specially at the request of the Medical Officer.

In one further case an employee suffering from a very mild skin condition was allowed to continue employment after having been treated successfully.

Investigations were carried out into the cases of 3 canteen workers who had received operative treatment for hernia, an orthopaedic defect and a prolapse condition, but all were subsequently considered to be fit for employment. Two further staff, one suffering from hypertension and the other from psychoneurosis, were found to be unsuitable for employment.

This scheme has also been extended to include personnel engaged in the preparation and handling of foodstuffs at the Boarding Schools and Hostels in the County and during the year, 93 such examinations were carried out by the School Medical Officers. In addition, 21 examinations were carried out in respect of canteen staff employed at two Colleges of Further Education.

SANITARY CIRCUMSTANCES OF THE SCHOOLS

In 1954 School Medical Officers completed comprehensive inspection reports on all the school premises in the county making notes on the sanitary arrangements, water supply, washing accommodation, canteens, heating, lighting and ventilation. On the occasion of each annual routine medical inspection the premises are re-inspected and matters which require attention or investigation are referred to the Secretary for Education with a view to their being dealt with by the Education Works Committee.

GENERAL

Meals.—School canteen meals are available at 1/- per head (free in necessitous cases) for one hundred per cent of children attending school; 69.9 per cent were having school dinners at a census taken in September, 1964 ; in September, 1963, the figure was 68.8 per cent.

Milk.—Milk is supplied free of charge in all schools and a census taken in September, 1964, showed that 73.5 per cent of the children were drinking it.

Quality of Milk Supplies.—As far as possible only Pasteurised Milks are supplied ; of a total of 300 departments in maintained schools, 299 had pasteurised supplies and 1 an untreated supply in 1964.

Investigation of Milk Supplies.—The County Public Health Inspectors are responsible for the supervision of school milk supplies and samples for testing are obtained by Sampling Officers of the County Health Department. Methylene Blue colour tests to determine the keeping quality and, in the case of Pasteurised milk, Phosphatase tests to determine whether the milk has been properly processed, are carried out on milk from each supplier at regular intervals. In addition, untreated milk is submitted to a biological test for the presence of tubercle bacilli.

The table below gives the results of the examination of samples taken during 1964 :

Grade of Milk	Samples taken	Methylene Blue Test			Phosphatase Test		Biological Test	
		Satis.	Unsatis.*	Void†	Satis.	Unsatis.	Satis.	Unsatis.
Pasteurised	289	245	29	15	245	—	—	—
Untreated	3	3	—	—	—	—	2	—
TOTAL ..	292	248	29	15	245	—	2	—

*In the cases of the samples failing the Methylene Blue Test follow up samples were taken, and these proved to be satisfactory.

†Methylene Blue tests are declared void when the atmospheric shade temperature exceeds 65°F. during storage in the laboratory.

Medical Examination of Prospective Teachers.—During 1964, the medical staff of the School Health Service examined 257 candidates for entry to the teaching profession.

STATISTICAL TABLES

(i.e. as submitted to the Department of Education and Science on Form 8.M)

TABLE 1 (A) PERIODIC MEDICAL INSPECTIONS

Age Groups Inspected (By year of birth)	Number of Pupils Inspected	Physical Condition of pupils inspected (nutrition)		Pupils found to require treatment (excluding dental diseases and infestation with vermin)		
		Satisfactory	Un-satisfactory	For defective vision (excluding squint)	For any other condition recorded at Part II	Total Individual pupils
		No.	No.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1960 and later ..	30	30	—	—	—	—
1959	2,077	2,077	—	30	65	88
1958	2,415	2,415	—	37	77	100
1957	706	706	—	9	20	25
1956	186	186	—	7	—	6
1955	125	125	—	3	7	9
1954	142	142	—	6	6	12
1953	839	839	—	29	31	54
1952	1,939	1,939	—	49	87	126
1951	1,203	1,203	—	35	53	88
1950	1,513	1,513	—	54	52	100
1949 and earlier ..	2,179	2,179	—	99	88	167
TOTAL ..	13,354	13,354	—	358	486	775

NOTE : (i) Routine medical examinations are normally carried out on entry to school, at 11 years of age and again at 14 years.

(ii) Columns 5, 6 and 7, relate to individual pupils and not to defects. Consequently the total in column (7) is not necessarily the sum of columns (5) and (6).

(B) OTHER INSPECTIONS

Special Inspections	1,644
Re-inspections	8,604
	10,248*

*In addition to those inspected a total of 2,475 pupils in 1956, i.e. 8 year old group, were given Vision tests. Of this total, 25 were recommended for treatment and 79 for observation.

(C) INFESTATION WITH VERMIN

(1) Total number of examinations in the schools by the School Nurses or other authorised persons ..	101,310
(2) Total number of individual pupils found to be infested	1,076
(3) Number of individual pupils in respect of whom cleansing notices were issued (Section 54(2), Education Act, 1944)	28
(4) Number of individual pupils in respect of whom cleansing orders were issued (Section 54(3), Education Act, 1944)	4

TABLE II

RETURN OF DEFECTS FOUND BY MEDICAL INSPECTIONS IN THE YEAR ENDED 31st DECEMBER, 1964
PERIODIC AND SPECIAL INSPECTIONS

Defect Code No.	Defect or Disease	Entrants		Leavers		Others		Total		Special inspections	
		Requiring :		Requiring :		Requiring :		Requiring :		Requiring :	
		Treatment	Observation	Treatment	Observation	Treatment	Observation	Treatment	Observation	Treatment	Observation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
4	Skin	23	181	47	135	70	182	140	498	41	36
5	Eyes (*a*) Vision	76	572	153	486	129	542	358	1,600	42	89
	(*b*) Squint	22	92	6	27	9	57	37	176	4	12
	(*c*) Other	2	37	1	18	5	27	8	82	—	8
6	Ears (*a*) Hearing ..	9	291	7	34	9	86	25	411	5	32
	(*b*) Otitis Media ..	5	165	2	45	4	60	11	270	1	26
	(*c*) Other	3	40	—	27	4	28	7	95	—	6
7	Nose or Throat	46	784	17	154	23	338	86	1,276	4	74
8	Speech	20	189	1	12	3	37	24	238	6	41
9	Lymphatic Glands ..	1	253	—	13	1	67	2	333	—	15
10	Heart	1	104	4	71	1	60	6	235	—	10
11	Lungs	5	253	4	53	1	113	10	419	—	29
12	Development :										
	(*a*) Hernia	3	17	—	6	3	18	6	41	—	4
	(*b*) Other	4	133	3	48	4	104	11	285	—	15
13	Orthopaedic :										
	(*a*) Posture ..	—	36	2	52	1	84	3	172	2	21
	(*b*) Feet	4	248	3	70	11	177	18	495	5	36
	(*c*) Other	6	161	13	130	6	137	25	428	2	21
14	Nervous System :										
	(*a*) Epilepsy ..	2	12	5	11	1	13	8	36	2	5
	(*b*) Other	—	24	1	17	1	20	2	61	—	6
15	Psychological :										
	(*a*) Development ..	—	92	3	42	7	95	10	229	1	73
	(*b*) Stability ..	5	146	2	68	3	126	10	340	—	103
16	Abdomen	1	87	3	40	4	74	8	201	—	12
17	Other	5	29	8	82	8	81	21	192	4	7

TABLE III

(A) EYE DISEASES, DEFECTIVE VISION AND SQUINT

	Number of cases dealt with
External and other, excluding errors of refraction and squint	16
Errors of refraction (including squint)	3,553
TOTAL ..	3,569
Number of pupils for whom spectacles were prescribed	3,484

(B) DISEASES AND DEFECTS OF EAR, NOSE AND THROAT

	Number of cases dealt with
Received operative treatment :	
(*a*) for diseases of the ear	43
(*b*) for adenoids and chronic tonsillitis ..	497
(*c*) for other nose and throat conditions ..	100
Received other forms of treatment	26
TOTAL ..	666
Total number of pupils in schools who are known to have been provided with hearing aids: (*a*) in 1964	43
(*b*) in previous years	95

(C) ORTHOPAEDIC AND POSTURAL DEFECTS

	Number of cases dealt with
Number of pupils known to have been treated at clinics or out-patients departments ..	166
Number of pupils treated at school for postural defects	48
TOTAL ..	214

(D) DISEASES OF THE SKIN (excluding Uncleanliness, for which see Part D of Table I)

	Number of defects treated or under treatment during the year
Ringworm: (i) Scalp ..	6
(ii) Body ..	9
Scabies	4
Impetigo	11
Other skin diseases	40
TOTAL ..	70

(E) CHILD GUIDANCE TREATMENT

Number of pupils treated at Child Guidance Clinics under arrangements made by the Authority ..	167

(F) SPEECH THERAPY

Number of pupils treated by Speech Therapists	391

(G) OTHER TREATMENT GIVEN

	Number of cases dealt with
(*a*) Miscellaneous Minor Ailments	76
(*b*) Pupils who received convalescent treatment under School Health Service arrangements ..	14
(*c*) Pupils who received B.C.G. Vaccination ..	3,176
(*d*) Other treatment given :	
Appendicitis	18
Asthma	22
Bronchitis	10
Cardiac Conditions	16
Diabetes	4
Epilepsy	9
Hernia	11
Meningitis	3
Nephritis	10
Pneumonia	5
Rheumatism / Rheumatic Fever	4
Tubercular Conditions	29*
Miscellaneous	163
TOTAL (*a*) — (*d*) ..	3,570

*27 of this total were attendances at Chest Clinics for "check-up."